2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

1. Program Name: Institutional Partnership Program
Program ID: Various
Program Type: Institutional Partnerships

ID#	Program	Sub-Program
3738	California Dept. of Corrections and Rehabilitation Partnership (CDCR)	*Sub-Program I**
3739	California Community Colleges Partnership (CCC)	*Sub-Program II**
3740	UC/CSU Partnership (UC/CSU)	*Sub-Program III**
3741	State of California Partnership (State of CA)	*Sub-Program IV**

** Each Sub-Program PIP is referenced in this document by designated Roman numeral.*

2. Projected Program Budget Table

Program #	Main/Sub Program Name	Administrative Amount	Marketing Amount	Direct Implementation Amount	Incentive Amount	Total Program Budget Amount
	Local Institutional Partnership Programs					
3738	LInstP-CA Department of Corrections Partnership	$148,361	$120,908	$249,124	$0	$518,394
3739	LInstP-California Community College Partnership	$185,630	$142,464	$375,341	$0	$703,435
3740	LInstP-UC/CSU/IOU Partnership	$258,098	$191,564	$496,399	$0	$946,060
3741	LInstP-State of CA/IOU Partnership	$158,983	$122,433	$264,301	$0	$545,717
	TOTAL:	**$751,072**	**$577,369**	**$1,385,165**	**$0**	**$2,713,605**

Note: Partnerships are considered non-resource programs and serve as a delivery mechanism for IOU programs.

3. Program Description

a) Describe Program

Institutional Partnerships are designed to create dynamic and symbiotic working relationships between Investor-Owned Utilities (IOU), state or local governments and agencies or educational institutions. The objective is to reduce energy usage through facility and equipment improvements, share best practices, and provide education and training to key personnel. SoCalGas' –2013-2014 statewide partnership portfolio will focus strongly on supporting the key California Energy Efficiency Strategic Plan (CEESP).The –2013-2014 Institutional Partnerships will also concentrate on innovative delivery channels and funding mechanisms to meet current economic conditions and achieve program integration and savings.

In the 2010-12 program cycle, SoCalGas successfully implemented three statewide institutional partnership programs; California Community Colleges (CCC), University of California and California State University (UC/CSU), California Department of Corrections and Rehabilitation (CDCR). Each statewide program was managed in conjunction with the other IOUs in the State of California. The –2013-2014 Institutional Partnerships will leverage off the past successes of the 2010 – 2012 Energy Efficiency portfolio and also strive to enhance offerings to meet the unique challenges of our institutional partners.

SoCalGas has developed a strong history of working closely with a variety of institutional customers to improve energy efficiency. These partnerships enable

customers to focus on; conservation, demand response, load shifting, and renewable energy within their facilities. In doing so, the partnerships assist institutional agencies comply with the state's CEESP and specific mandates enforced by the Governor. Additionally, the partnerships enable the institutional agencies to learn about and utilize innovative programs. They help the partners integrate efficiency into their overall plan and budget. By their very nature the partnerships facilitate collaboration between utilities, institutional agencies, and technical experts.

The cooperative nature of the partnerships, as well as the enhanced awareness they place on energy efficiency, has enabled many large projects at institutional facilities to be implemented that otherwise would have failed had they not been championed by partnership teams. In prior years, many partnerships achieved several million kWh of savings that might have otherwise been lost or installed with less-efficient equipment resulting in lower savings achieved. Institutional partnerships help to provide a streamlined and comprehensive approach to the customer, eliminating competition and confusion between IOU offerings.

Institutional Partnerships have evolved over the years to not only deliver energy savings but to include well established management teams. These management teams are comprised of IOU staff and representatives from institutional partners for each statewide partnership. The primary focus of the management teams is to present a consolidated approach to project management. The management team also assists the partner in identifying facilities that can be thoroughly audited; utilizing a comprehensive building approach to maximize the energy efficient potential. The management team reviews potential projects and develops working documents to illustrate payback and return on investments. This approach allows for projects to be prioritized and evaluated for potential implementation.

In addition, the partnerships have demonstrated that the three pillars of the Strategic Plan—Innovation, Integration, and Collaboration—are indeed the key to achieving the next generation of cost-effective, energy efficiency programs and the resulting reduction in greenhouse gas (GHG) emissions. Institutional partnerships capitalize on the vast opportunities for efficiency improvements and utilize the resources and expertise of IOU staff to ensure successful and cost-effective programs that meets all objectives of the California Public Utilities Commission (CPUC or Commission).

With the rising costs of energy and the current economic situation, partnerships will be vital in helping to offset project costs for customers and allowing continued advancement in the area of energy efficiency. Each Statewide program has developed strategies to allow for new opportunities as partnerships are forged and projects are implemented.

The four sub-programs proposed are listed and described below. Individual Program Implementation Plans (PIPs) for each are provided later in the document

<u>Program Elements for Institutional Partnerships</u>

The adaption and coordination of the 3 core elements (Institutional Facilities, Strategic Plan and Core Program Coordination) are represented below and have been agreed upon

through discussions with IOUs and CPUC. Below is a list of core and sub-program elements that will be pursued by all partnerships. Elements that are unique to a single or a few partnerships will be described separately in sub-program PIPs.

Core Program Elements	Sub-Program Elements	Type of Program Element
1 – Government and Institutional Facilities	Energy Efficiency Retrofits	Resource
	Retro-Commissioning (RCx) & Monitoring Based Commissioning (MBCx)	Resource
	Demand Response New Construction	Demand Response Resource
	Program Administrative Management and Engineering Support	Non-Resource (technical assistance for project management, training, audits, etc.)
	On-Bill Financing	Non-Resource
2 – Strategic Plan Support	Code Compliance Support	Non-Resource
	Reach Code Support	Non-Resource
	Guiding Document(s) Support	Non-Resource
	Funding Sources	Non-Resource
	Peer-to-Peer Support	Non-Resource
3 – Core Program Coordination	Outreach & Education	Non-Resource
	New Construction and Demand Response	Resource – Demand Response
	Third Party Program Coordination	Non-Resource
	Emerging Technologies	Non-Resource
	Technical assistance for program management, training, audits, etc.	Non-Resource

Energy Efficiency Retrofits

This energy efficiency element could include: (1) Replacement of boilers, motors, variable frequency drives, energy management system upgrades, and HVAC upgrades/replacements including; chiller replacements and central plant upgrades. The partnerships will investigate opportunities to include energy efficiency measures in all major new construction and renovation projects, special repair projects, and standard scheduled maintenance operations.

To create energy savings in the existing facilities of the institutional partners, the partnerships will work with the facilities staff of the various customers to identify facilities and develop a pool of retrofit projects for implementation. Partnerships will also utilize benchmarking to identify retrofit candidates. The scope of the projects will be contingent on the availability of funds; however, the partnerships will work to ensure that projects are lined up in the event that additional funding is secured.

Each of the partnerships will have methodologies for identifying projects that work within their respective organizational structures. The identification strategy will involve the partnership teams preparing lists of potential projects matching the institutional customers with available budgets and existing modernization plans. Identification of potential sites includes utilities providing lists of service accounts with their annual consumption and peak demand values and consultants visiting probable sites to evaluate the efficiency upgrade potential of those sites.

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SoCalGas will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

In some cases and where applicable, institutional partners will use of the U.S. Department of Energy's Portfolio Manager to identify eligible candidates for energy efficiency projects. High-scoring buildings (above 75) typically meet the requirements of Executive Order S-20-04 in their optimization of energy use. Lower-scoring buildings are identified as candidates for potential energy efficiency programs. This process allows the IOUs and the institutional partners to make the best cost-effective choice in installing energy efficient measures.

Retro-Commissioning and Monitoring-Based Commissioning

Each partnership will work to implement retro-commissioning (RCx) and/or monitoring-based commissioning (MBCx) projects. Some partnerships have already implemented such programs in some of their facilities, and they will continue to expand the number of facilities benefiting from these services. Others will work to implement them for the first time in a smaller number of facilities.

The RCx and MBCx projects will serve as opportunities to demonstrate a cost-effective approach to optimizing facility operations, saving both electric and gas energy, reducing operating costs while improving occupancy comfort, and improving environmental quality and reducing greenhouse gas emissions. The outcome of the projects will serve as an example to other internal departments within each customer organization, to other government agencies, and to private sector entities to encourage them to retro-commission their facilities.

Activities for this element may include but are not limited to the following:

- Selecting candidate buildings for RCx or MBCx based on results of benchmarking efforts or participation in the SoCalGas retro-commissioning program.
- Developing RCx/MBCx plans for each candidate building.
- Investigating opportunities through technical assessments of major building systems (lighting, HVAC, etc.).
- Conducting pre-functional tests of building systems.
- Identifying and correcting minor no-cost/low-cost deficiencies as well as capital improvement measures for future planning that may further improve system operation.
- Utilizing modeling/simulation software to model building operation and determine scenarios for optimum performance.
- Conducting functional performance tests to ensure proper operation of the optimized systems.
- Developing training manuals and monitoring capabilities (if applicable) to ensure persistence of energy savings.
- Developing plans to comply with the governor's executive order and/or local government directives for future benchmarking and RCx activities.

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New Construction and Design Assistance

The partnerships will strive to achieve energy efficiency within all new buildings constructed by the partner institutions. Although the partner institutions have overarching directives that strive for laudable energy efficiency goals, these goals are not always implemented in practice. Budget and other constraints, as well as lack of concern, awareness, or knowledge, inhibit the realization of these goals in many new construction projects.

The ability of the partnership management teams to even be aware of all new construction projects varies significantly between the partnerships. The ability of the partnerships, or even the institutional representatives on the partnership teams, to actually control the implementation of energy efficiency in these new construction projects is even more limited. Therefore, education about energy efficiency and increasing both awareness of and concern about the subject among key decision-makers is a vital role of the partnerships, both for retrofits and new construction. The success of the partnerships in reaching all (or most) of the new construction projects is dependent upon their ability to bring various agencies, departments, and managers together under the energy efficiency umbrella.

For new construction projects, the partnerships' initial goal is be to become aware of the various ongoing and planned projects within their institutions. This will be an easier task for the more centralized partners and more difficult for partners with distributed control.

Once the partnership teams are aware of new construction projects, they will work with the key decision makers to make sure they are on board with the importance of energy efficiency. The partnerships will also work closely with the utilities' Commercial New Construction Programs to provide assistance to the design teams for the new facilities. Because new construction energy efficiency is more effective when brought on board in the early design stages, the partnerships will strive to be pro-active in this manner, reaching out to newly planned projects as soon as they become known.

Funding Sources

Federal grants, state financing, local bonds, IOU incentives, O&M budgets, and on-bill financing are potential funding sources. The partnership team and participating institutional partners may explore additional financing alternatives such as rebates, on-bill credit, CEC funding, and independent financing to maximize the state's investment in energy efficiency.

Often the strengths of the customer organizations are leveraged in order to provide various in-kind contributions that benefit the entire program. These contributions include but are not limited to project management, facility personnel, marketing, site location venues and administrative time.

On-Bill Financing

On-Bill Financing offering will provide zero ~~to low~~ interest financing for qualifying energy efficiency installations of lighting, refrigeration, and air conditioning measures for

SoCalGas' Market Segments, such as the Commercial and Industrial Market Segments and for government and institutional partnership programs.

All participating customers will be pre-qualified for a loan based on the customers' utility bill and payment history. The length of the loan may vary depending on the customer segment and measure life. Typically, a business loan will not exceed a 5 year term, while a government or institutional loan will usually not exceed a 7 year term. In addition, the length of the loan will also be capped at the length of measure life.

Loans will have a range from a minimum of $5,000 to approximately $1,000,000 for government and institutions. Maximum amount for government and institutions may vary by partnership and customer segments and will be subject to further research.

Many of the government and institutions are unable to incorporate energy efficiency designs or retrofits due to the lack of capital funds and complex procurement and funding procedures after the initial budget has been approved. The OBF element can be an effective tool that will increase participation and minimize lost opportunities.

Demand Response

Demand response programs provide tariff-based benefits to customers implementing demand response activities. For demand response initiatives involving the purchase and installation of equipment by SoCalGas's business customers, a plan will be developed to provide a financial incentive for energy savings resulting from the equipment supplied through the partnership program.

Partnerships will look for opportunities to integrate demand response and other DSM services into the program implementation plan. Resources will be leveraged to improve implementation efficiency and reduce transactional impacts on partnership staff. IOU energy efficiency and demand response program staff will collaborate with partners to conduct comprehensive audits and identify energy efficiency measures and demand response opportunities. The approach will reduce technical resources by combining EE/DR audits to avoid duplication and collaborate on incentive offerings which will all minimize customer interruptions.

The partners will venture to identify facilities or an aggregation of facilities under a service account in order to establish opportunities for demand response participation.

Statewide Programs	Description	Sources of Funding & Assistance
California Dept. of Corrections and Rehabilitation Partnership	The CDCR/IOU partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOUs.	Federal grants (specifically for new construction and modernization), state financing, IOU incentives and on-bill financing opportunities in accordance with CEESP objectives.
State of California	State of California/Investor-Owned Utilities	Federal grants (potential), state

Statewide Programs	Description	Sources of Funding & Assistance
Partnership	(IOU) are collaborating to assist the state's 36 agencies to reduce the amount of energy they purchase by 20 percent by 2015, as required by the governor's Executive Order S-20-04 (i.e. Green Building Initiative (GBI)). Like all Executive Orders, the GBI is an unfunded mandate that requires State agencies to support the governor's environmental agenda.	financing, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.
UC/CSU/IOU Partnership	The University of California, California State University (UC/CSU), Southern California Gas and the IOUs are collaborating to continue this Partnership to share energy efficiency best practices and implement energy efficiency projects for immediate and long-term energy savings and peak demand reduction.	State financing, local bonds, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.
California Community Colleges Partnership	The CCC/IOU Energy Efficiency Partnership has been a successful collaboration between the California Community Colleges (CCC) and the four Investor-Owned Utilities (IOUs). The CCC is a two-year public institution of higher education that is composed of 110 colleges statewide and organized into 72 self-governing Districts.	Federal grants, state financing, local bonds, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.

b) List measures (technologies and corresponding incentive levels) to be provided in program and as used to develop the program's measure groupings.

The energy efficiency measures identified by all partnerships include both electric and gas measures.

Measure Categories	Technologies
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the lighting or HVAC categories.
Air Conditioning and Refrigeration	• Air conditioning and refrigeration- Includes system and major subsystem replacements such as central plants, chiller/boiler retrofits, whole building, and any other energy efficiency components in major infrastructure projects;
Other	New Construction, RCx, MBCx

- All program delivery mechanisms such as third parties and other innovative delivery techniques are provided at designated program incentive rates.
- Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved (for UC/CSU/CCC/CDCR, and State of CA) and will be detailed in the sub program for the specific partnership. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed-upon energy savings determined as part of the

project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.

Incentive levels are referenced for each specific partnership in Sub-Program PIP I, II, III, IV, Section 6, iii.

c) List non-incentive customer services

The Institutional and Government Partnerships may include non-energy activities such as presentations at industry and association events, attendance at conferences, meetings, and community/outreach fairs. Distribution of marketing materials will be included at each event. Additional services include:

- Quality Assurance and Evaluation
- Training and education
- Design assistance
- Due diligence / project review
- Strategic Plan Support
- Core Program Coordination
- Funding Sources
- Program Administration and Management Support
- Support of State Assembly Bills, Senate Bills, and Executive Orders

4. Program Rationale and Expected Outcome[1]

SoCalGas and the other IOUs face the challenge of implementing cost effective energy efficiency programs that will result in immediate, long-term peak energy and demand savings in their service territories. The institutional partnerships consume vast quantities of energy and make up a significant portion of the both the electric and natural gas load in the State of California. These entities are large, complex organizations with a broad set of goals, stakeholders, processes and constituencies. They are diverse from a geographic, climate, and operational needs standpoint. But with this size and diversity also comes a considerable opportunity to save energy use and cost on a scale that is meaningful to the IOUs and to California. Institutional partners also frequently struggle to fund and implement energy efficiency activities because of budgetary and resource issues. The Institutional Energy Efficiency Partnership Program is designed to meet these challenges.

Partnerships help provide a streamlined approach to institutional customers. Each utility dedicates a specific management team to support a portfolio approach, provide additional resources, and introduce innovative ideas to meeting the dynamics of institutional customers. Utility incentives and funding mechanisms help make energy efficient projects more cost effective and viable for institutional customers during the current economic times.

[1] To be provided for each program and sub-program in PIP.

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The expected outcomes for the –2013 - 2014 partnership programs include:

Partnerships will continue to:

- Lead and coordinate all energy efficiency, demand response, and solar initiatives by being the main point of contact for DSM offerings coordinating all projects, including Energy Efficiency (EE), Demand Response (DR), California Solar Initiative (CSI), Self Generation Incentive (SGIP) Programs as applicable to the partner.
- Leverage Partners' communications and outreach infrastructure to reach customers and/or internal departments more effectively,
- Provide co-marketing and technical support services dependent upon the customer's specific needs,
- Serve a key and growing role in creating and maintaining goodwill between the utilities and public sector customers. Institutional Partnerships build strong relationships statewide with the other IOUs and statewide customers, as well as with cities and counties.
- Continue to successfully develop new partnerships enhanced by the following improvements:
    - Direct a stronger focus on helping partners lead by example through addressing energy efficiency opportunities in their own facilities. Specifically, the partnerships will provide (1) technical assistance in identifying energy efficiency retrofit and retro-commissioning (RCx) projects, (2) financial assistance to help overcome barriers to implementation of these projects, and (3) combination EE/DR audits.
    - The partnership will seek opportunities to facilitate enhanced compliance with codes and standards. (AB 32, LEED, Exceeding Title 24 standards, etc.)
- Help to integrate the offering of demand-side management (DSM) programs and design strategies that will assist with the California Energy Efficiency Strategic Plan (CEESP).
    - Energy efficiency and demand response audits will be integrated and the partnership management team will actively coordinate all DSM services. SoCalGas will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.
    - Simplify and standardize state policies and codes guiding local building design and zoning codes.
    - Building the capability to lead by example in energy-related technologies
    - Maximize energy efficiency in new and existing construction and/or statewide policy
    - Rapidly upgrade and expand energy efficiency training and information for energy managers and maintenance personnel.

- Align energy efficiency program opportunities closely with Green Rating opportunities, and increase program participation by ensuring that green rating systems reflect or parallel program offerings.

Expected Outcomes

The partnerships will deliver energy savings and peak demand reduction in the facilities of the partner customers and other government agencies. These energy savings will be accomplished by evaluating the energy efficiency potential of existing buildings and then implementing retrofits and/or retro commissioning in some of those buildings. Additional savings will be achieved by working in the early stages of new construction projects to assure the most energy-efficient design acceptable to the customer (and to increase the desire to make highly energy-efficient designs "acceptable").

Other program results will include:

- Showing that, with upper management support for energy efficiency, the customers can create opportunities to save energy, reduce operating costs, and improve occupancy comfort.
- Demonstrating that the partnership programs can be extremely cost-effective in the implementation of energy projects by supplementing the customers' project funding with the incentives offered by the utilities.
- Evaluating the value of energy efficiency activities and the benefits associated with retro-commissioning.
- Exhibiting the potential for future public/private partnership efforts.
- Conducting a comprehensive survey of the potential for energy projects at customer facilities, identifying the best candidates for retro-commissioning or retrofitting, and constructing a long-term plan for the implementation of these projects. These energy project plans will be important to ensure that the customers continue to plan and implement energy efficiency projects beyond the term of the partnership so that the reduction in energy consumption occurs by the 2015 deadline.
- Developing opportunities for various government agencies to share best practices and lessons learned from partnership activities, especially in the areas of benchmarking, energy efficiency, retrofits, retro-commissioning, and emerging technology.
- Increasing awareness of energy efficiency among elected leaders, agency managers, operating staff, and the general public.
- Publicizing the benefits of utility incentive programs within various government agencies.
- Providing specific information to the constituents of the institutional partners regarding the partners' achievements in energy efficiency as well as environmental improvements such as reducing greenhouse gases.

- Provide new and innovative ways to fund and implement energy efficient projects.

a) Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

Market transformation is embraced as an ideal end state resulting from the collective efforts of the energy efficiency field, but differing understandings of both the MT process and the successful end state have not yet converged. The CPUC defines the end state of MT as "Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is no longer appropriate in that specific market."[2] The Strategic Plan recognizes that process of transformation is harder to define than its end state, and that new programs are needed to support the continuous transformation of markets around successive generations of new technologies[3].

Market transformation programs differ from resource acquisition programs on 1) objectives, 2) geographical and 3) temporal dimensions, 4) baselines, 5) performance metrics, 6) program delivery mechanisms, 7) target populations, 8) attribution of causal relationships, and 9) market structures[4]. Markets are social institutions[5], and transformation requires the coordinated effort of many stakeholders at the national level, directed to not immediate energy savings but rather to intermediary steps such as changing behavior, attitudes, and market supply chains[6] as well as changes to codes and standards. Resource acquisition programs rely upon the use of financial incentives, but concerns have been raised that these incentives distort true market price signals and may directly counter market transformation progress[7]. According to York[8], "Market transformation is not likely to be achieved without significant, permanent increases in energy prices. From an economic perspective, there are 3 ways to achieve market transformation: (1) fundamental changes in behavior, (2) provide proper price signals, and (3) permanent subsidy."

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[2] California Public Utilities Commission Decision, D.98-04-063, Appendix A.
[3] California Public Utilities Commission (2008) *California Long Term Energy Efficiency Strategic Plan,* p. 5. Available at http://www.californiaenergyefficiency.com/docs/EEStrategicPlan.pdf
[4] Peloza, J., and York, D. (1999). "Market Transformation: A Guide for Program Developers." Energy Center of Wisconsin. Available at: http://www.ecw.org/ecwresults/189-1.pdf
[5] Blumstein, C., Goldstone, S., & Lutzenhiser, L. (2001) "From technology transfer to market transformation". Proceedings of the European Council for an Energy Efficient Economy Summer Study. Available at http://www.eceee.org/conference_proceedings/eceee/2001/Panel_2/p2_7/Paper/
[6] Sebold, F. D., Fields, A., Skumatz, L., Feldman, S., Goldberg, M., Keating, K., Peters, J. (2001) *A Framework for Planning and Assessing Publicly Funded Energy Efficiency*. p. 6-4. Available at www.calmac.org.
[7] Gibbs, M., and Townsend, J. (2000). The Role of Rebates in Market Transformation: Friend or Foe. In *Proceedings from 2000 Summer Study on Energy Efficiency in Buildings.*
[8] York, D., (1999). "A Discussion and Critique of Market Transformation", Energy Center of Wisconsin. Available at http://www.ecw.org/ecwresults/186-1.pdf.

The question of what constitutes successful transformation is controversial because of a Catch-22: Market transformation is deemed successful when the changed market is self-sustaining, but that determination cannot be made until after program interventions are ended. Often, however, the need for immediate energy and demand savings or immediate carbon-emissions reductions will mean that program interventions may need to continue, which would interfere with the evaluation of whether MT is self-sustaining. Market transformation success has also been defined in terms of higher sales of efficient measures than would have otherwise occurred against a baseline absent of program interventions. The real world, however, provides no such control condition. Evaluators must estimate these baselines from quantitative factors such as past market sales that may be sparse and/or inaccurate - particularly for new products. Evaluations must also defer to expert judgments on what these baselines may have been as well as on the degree of successful market transformation[9]. Due to the subjective nature of these judgments, it is imperative that baselines as well as milestone MT targets be determined and agreed upon through collaborative discussion by all stakeholders, and these targets may need periodic revision as deemed necessary by changing context.

Market transformation draws heavily upon diffusion of innovation theory[10], with the state of a market usually characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades[11]. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects[12]. The ability to make causal connections between these market transformation effects and any particular program's activities fades with time, as markets continually change and other influences come into play.

These challenges mentioned above are in reference to programs that were specifically designed to achieve market transformation; and these challenges are only compounded for programs that were primarily designed to achieve energy and demand savings. However, since the inception of market transformation programs almost two decades ago, many lessons have been learned about what the characteristics of successful MT programs are. First and foremost, they need to be designed specifically to address market transformation. "The main reason that (most) programs do not accomplish lasting market effects is because they are not designed specifically to address this goal (often because of regulatory policy directions given to program designers.)[13]" The Strategic Plan recognizes that regulatory policies are not yet in place to support the success of market transformation efforts[14], but also reflects the CPUC's directive to design energy efficiency programs that can lay the groundwork for either market transformation success or for codes and standards changes.

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[9] Nadel, S., Thorne, J., Sachs, H., Prindle, B., and Elliot, R.N. (2003). "Market Transformation: Substantial Progress from a Decade of Work." American Council for an Energy-Efficient Economy, Report Number A036. Available at: http://www.aceee.org/pubs/a036full.pdf

[10] Rogers (1995) Diffusion of Innovations, 5th Ed.

[11] Example in bottom chart of this graphic from NYTimes: http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html

[12] Sebold et al (2001) p. 6-5,

[13] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.

[14] CPUC (2008) Strategic Plan, p. 5.

Above all else, the hallmark of a successful market transformation program is in the coordination of efforts across many stakeholders. The most successful MT programs have involved multiple organizations, providing overlapping market interventions[15]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[16] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 2 and 3 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects.

Therefore, for the Institutional Partnerships, the utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

With this discussion in mind, IOUs propose the following metrics for this sector:

	Baseline Metric

[15] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[16] Peloza & York, (1999).

	Metric A
Energy Efficiency Action Plans	Baseline inventory of cities, counties and government institutions within the IOU territory that have adopted such energy planning documents as Energy Action Plans, Climate Action Plans and Sustainability Plans, and General Plans with energy or climate elements.

b) Market Transformation Information

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Internal Market Transformation Planning Estimates		
Market Sector and Segment	**2013**	**2014**
Baseline inventory of cities, counties and government institutions within the IOU territory that have adopted such energy planning documents as Energy Action Plans, Climate Action Plans and Sustainability Plans, and General Plans with energy or climate elements.	Improvement over baseline, over time	Improvement over baseline, over time

1) *Program Design to Overcome Barriers: Describe priority barriers that the program will overcome and how program is designed -- through marketing, delivery mechanisms, incentive levels, or other means -- to overcome these barriers.*

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The existing partnerships have worked diligently to overcome barriers, though many still exist. The effort to resolve barriers is on-going, and significant progress has been made in each of the various partner customers. At the heart of the evolving success are the partnership teams made up of customer staff, utility staff, and consulting professionals. These teams enable the partnerships to overcome these barriers through a number of important and innovative mechanisms. The chart below outlines overarching barriers applicable to all partnerships. Specific barriers will be discussed in each sub-program PIPs below.

Primary Barriers	Strategies to Overcome Barriers
Funding: Project Funding Constraints. Energy efficiency is costly and budgets are limited. The decision-makers approving the details of a project often choose not to implement the high-costing more-efficient systems, equipment, or technologies. The Energy $Mart Loan Program: This State program has taken a hit with the current economy and currently only carries one preferred lender. The IOUs On-Bill Financing: Not all utility OBF programs are ready for implementation. Internal Policy for Incentives: Incentive dollars are most often allocated to the general fund which makes for an inability to ensure incentives are allocated toward the participating department budget.	Incentives help relieve budgetary constraints and assist the economic evaluations of the customers by making energy efficiency more cost-effective. In addition to their purely economic role, the incentives play an important part in promoting the importance and visibility of energy efficiency. The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services. CEC loans may be able to fulfill the gap in funding. The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades Internal Policy for Incentives Assist customer with identifying ways of authorizing funding departments to recapture dollars received from incentives to reinvest in future energy projects.
Knowledge Barrier. Economic decisions are often short-sighted, with capital limitations taking precedence over long-term savings, even when accurate economic analysis would select the higher initial cost of higher-efficiency choices.	Education and training brings energy efficiency awareness to decision-makers at all levels. Many of the partnerships have specific plans to incorporate education and training for a variety of people including elected officials, key department managers, facilities staff, personnel from other local governments (such as cities and school districts within the counties), and, in the case of the college partnerships, training within the general population.
Technology itself is rapidly developing, and even the best-informed energy professionals have difficulty distinguishing between sales propaganda and truly valid technical advancements.	Integration allows the partnership management team to be the single source of contact that enables the institutional customers to take advantage of all energy programs offered by the IOUs. This integration will break down many customer barriers to participation in multiple programs. Integration is innovatively being collaborated with internal utility departments in order to fulfill this strategy. Future strategic plans are being developed to include new construction, emerging technologies, education and training, demand response, California Solar Initiative (CSI), self-generation, on-bill financing, and other utility programs within the scope of partnership activities.
Staffing. Staff time is at a premium, with most facility personnel. Attention to proper energy efficiency is time consuming and may get shelved as staff members work on more immediate problems.	Professional assistance from utility staff and partnership consultants allows potential projects to be identified and evaluated. Many institutional and government customers do not have the time to methodically evaluate their buildings and identify the most salient energy efficiency projects. Furthermore, facility personnel often lack the technical expertise to evaluate those projects and determine the best energy

Primary Barriers	Strategies to Overcome Barriers
	efficiency improvements. The partnership team is able to prepare comprehensive lists of projects, evaluate their energy savings potential, and bring them to the team for review. The customer can then use this information to accelerate the timing of some projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules, for energy efficiency enhancements.
Information Dissemination: Some of the agencies lack the technical expertise to develop or manage projects.	The management team is currently developing an information tool for some agencies that will help reveal the savings potential of implementing energy efficiency measures in like size facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.

We anticipate that each of the partnerships will continue to work through the various obstacles that inhibit the full implementation of energy efficiency within their customer institutions. This is a gradual and evolving process, and some of the partnerships have more significant barriers than others. Nonetheless, the partnership model is effective for all of them and leads to considerable energy savings and demand reduction, both in new construction and in existing buildings. For many of the institutional customers, budget requirements are becoming even tighter. The continuation of the partnerships will help assure that barriers do not become even more significant as budgets are reduced. Institutional Partnerships are designed to overcome barriers to participation and are designed to eliminate these barriers through:

Customer Contributions

Often the strengths of the customer organizations are leveraged in order to provide various in-kind contributions that benefit the entire program. These contributions include but are not limited to project management, facility personnel, marketing, site location venues and administrative time.

The customer-partners provide major support to the partnerships and the energy-efficiency projects sponsored by the partnerships. The equipment and installation of the retrofit, new construction, and RCx/MBCx projects is paid for by the customers. The projects are managed by them or by a project manager paid for by customer funds.

Key personnel from the institutional partners also attend the routine partnership team meetings and provide additional work directing overall partnership activities and managing various energy efficiency projects. In some cases these are full-time positions paid for by the customer. Customer managers and various facilities and technical staff also provide assistance on an as-needed basis to the utility staff and/or partnership consultants for their various duties. This assistance includes such things as researching and locating building plans and providing access for and assisting with site surveys and monitoring activities.

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Single Point of Contact

The partner customer would like a single point contact for energy programs that can help them make the most logical, effective energy decisions, and not have to sort out competing IOU offerings. The partnerships have taken a proactive approach to the integration of program communication. One strategy is to assemble a package of offerings that covers all the energy bases and is not just confined to the direct offerings from the partnership. These offering packages are presented one-on-one by the partnership team to various other personnel within the institution. The partnership teams are committed to using the most appropriate programs and will make sure that the right people for each IOU program are brought in at the right time for their implementation.

2) Quantitative Program Targets: Provide estimated quantitative information on number of projects, companies, non-incentive customer services and/or incentives that program aims to deliver and/or complete in –2013 - 2014 timeframe. Provide references where available.

Program Name	Program Target by 2013	Program Target by 2014
Institutional and Government Facilities		
EE/DR Audits	Ensure 100% of all audits are coordinated EE/DR efforts if applicable	Ensure 100% of all audits are coordinated EE/DR efforts if applicable
Lighting and HVAC Retrofits	Identify potential for Retrofits	Identify potential for Retrofits
RCx and MBCx	Benchmark facilities to determine potential	Benchmark facilities to determine potential
New Construction	Communicate Integration Strategy between internal departments and offerings and incentive structure.	Develop project agreement plan to ensure penetration of all existing and future potential projects.
Strategic Plan Support		
See below		
Core Program Integration		
Education and Outreach	A minimum of 5 Partner Presentations	A minimum of 5 Partner Presentations
Financial Solutions Program: On-Bill Financing Element	Development documentation package and project agreement for partners.	Determine which partners will use OBF, establish a model for how OBF can be used with Institutional and Government customers.
CSI	Establish communication plan for ensuring partners have been educated regarding solar potential	Develop project agreement plan and determine necessary stakeholders.

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Program Name	Program Target by 2013	Program Target by 2014

3) Advancing Strategic Plan goals and objectives: Describe how program aggressively advances the goals, strategies and objectives of the California Long Term Energy Efficiency Strategic Plan. Reference and describe how program advances specific –2013 - 2014 near term action steps toward Strategies outlined in plan.

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond. Institutional and Government partnerships are a natural fit with the goals, objectives, and strategies articulated in the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). The partnerships have demonstrated that three objectives —Innovation, Integration, and Collaboration—are indeed the key to achieving the next generation of cost-effective, energy efficiency programs and the resulting reduction in greenhouse gas (GHG) emissions by applying both Commercial and Local Government sector strategies to the Statewide IOU partnerships as follows:

Commercial Sector – Section 2	
2-1: Lead by Example: State/local governments and major corporations commit to achieve energy efficiency, EE, (or green) targets in existing buildings.	Where the budget allows, customer owned buildings are benchmarked and retro-commissioned.
2-5: Develop tools and strategies to use information and behavioral strategies, commissioning, and training to reduce energy consumption in commercial buildings	Implement monitor based commissioning and provide training for energy managers to continuously monitor and optimize building operational performance.
2-6: Develop effective financial tools for EE improvement to existing buildings.	Develop financial solutions that are compatible with the state legal requirements. Exploring avenues that may work around lease terms to address perceived tenant/owner "split incentives" issue.
2-8: Improve utilization of plug load technologies within the commercial sector.	Leverage PC network software and vending machine controls to reduce commercial building plug loads.
Commercial Sector – Section 3	
3-1: Drive continual advances in lighting technology through research programs and design competitions.	Work with PIER to pilot lighting products on state-owned facilities where available.
3-2: Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs.	Piloting emerging technologies in lighting collaboration with building owners.

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DSM Integration and Coordination - Section 8	
1-1: Carry out integrated marketing of DSM opportunities across all customer classes.	Integrate demand-side management programs (Distributed Generation, California Solar Initiative and Demand Response) in order to limit lost opportunities.

5. Program Implementation

a. Statewide IOU Coordination: Describe statewide IOU coordination efforts that will guide program implementation. Describe how the following will be coordinated and unified when available:

i) Program name
Statewide Institutional Energy Efficiency Partnerships – (CDCR, State of CA, UC/CSU, CCC)

ii) Program delivery mechanisms

The partnerships will build upon the implementation strategies used in the 10-12 cycle. Mechanisms include:

- CORE / Target Market coordination
- Third Party Coordination
- Direct Install coordination with new and existing implementers
- Non-Residential Retrofit (NRR)
- Coordination with Non-residential New Construction (NRNC)

The implementation plan for this cycle will be refined to account for progress already made and will include:

- A more streamlined program management structure.
- Coordination with other energy efficiency programs and ongoing statewide and local government partnerships.
- Energy efficiency retrofits program element implementation (including project selection and implementation).
- Monitoring-based commissioning (MBCx) and MBCx Express implementation.
- Energy efficiency education and best practices development and training implementation.
- Integration with portfolio of products & services (e.g. California Solar Initiative, Savings By Design, new construction and demand response activities) into a partnership that enables easier customer access and streamlined IOU management of programs.

Third Party Program Coordination

Partnerships will ensure that third party programs are coordinated throughout partnership portfolios. Partnerships will present all delivery channels to customers to meet their unique needs. Due to funding constraints; third party program may be a more cost effective alternative to achieving energy savings. Management teams will coordinate internally to deliver third party programs as a combined front to the partner, eliminating multiple personnel and points of contact.

iii) Incentive levels

- See sub-program PIPs for specific incentive levels.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

- The Institutional Partnership structure builds on previously successful marketing and communication networks between the partner and its various agencies. This "buy-in" from the top opens up communications channels to the whole system. Combined with the existing management structure from the 2006-08 and 2010-12 programs, this will facilitate marketing activities through pre-established channels for 2013 - 2014. Due to support from the top of the organization, partnership programs will be very visible and provide opportunities to leverage existing conferences and meetings to raise awareness among internal departments for the program.

Peer-to-Peer Support

Peer-to-peer support is considered a key part of the partnership strategy. Forums will be created for partners to share best practices and offer support for each other. Institutional partners utilize conferences and partnership workshops to present lessons learned and share success stories to expand outreach and encourage other segment customers to implement these various strategies for aligning with the CEESP.

See Sub-PIP tables Section 6, iv for Key Outreach Activities

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

IOUs are continuously monitoring their respective local government partners to leverage off best practices and new/innovative programs. IOUs are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CDCR medical facilities. In regards to the ARB, there is constant observation on air pollution policies to help partners meet the mandate of AB 32.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offering where practical to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If IOUs have interest in implementing EE programs, the partnership may provide technical assistance in designing these programs if requested.

b) Program delivery and coordination: Addressing all applicable items on the list below, describe how the program will be delivered or implemented in concert with them, including, if applicable, coordination with other Agency programs or actions. Describe timeline by which market segment/ sub-segment is expected to be "transformed". Where they exist, highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).

i) Emerging Technologies program:

Emerging Technologies Element

Institutions provide venues for the piloting of new technologies and may test technologies that could potentially be implemented across the state. The Codes and Standards Program considers partnerships a high priority in the selection of test sites and also links with CEC's PIER program.

The importance of energy efficiency within the state and the world is encouraging rapid development of new technologies and improved energy efficiency. However, it is virtually impossible for either key decision-makers or their technical staff to keep up with the rapidly evolving market. Even when they learn about the new technologies, it is very difficult to ascertain the true energy efficiency value of the new technologies and to distinguish scientific research from sales hyperbole.

The utilities, their research organizations, and their connection with the various state research organizations are vital links to the partners. New technology will be a useful component of the education and training element of the partnerships. The partnerships will be able to provide information to the managerial and technical personnel of the institutional customers to help them determine which technologies are worthy of consideration in energy efficiency.

Furthermore, some of the customers are very interested in serving as beta test sites for new technologies. Partnerships may well become key avenues by which new products or technologies can be installed, tested, and evaluated. The partnerships and their institutions will be able to work hand-in-hand with the utility and/or Energy Commission researchers in this arena.

Many of the Higher Education partnerships also include in house development and research of new emerging technologies lending to the ever increasing request for institutional partners to pilot new technologies.

ii) Codes and Standards program

Reach Code Support

The Reach Code Support sub-element will be implemented primarily through the Codes and Standards program PIPs. IP's that choose to include Reach Code Support in their program will be encouraged to optimize compliance of existing codes before developing new reach codes. Some individual Partnerships may choose to include Reach Code activities to promote codes that exceed Title 24 requirements. Again, all reach code support activity will be coordinated with the Codes and Standards program to ensure government input and support for Codes and Standards development of model reach codes that align with Title 24 and achieve measurable energy savings. Partnerships that include Reach Code activities could perform activities that range from training staff regarding adoption and implementation of model reach codes to establishing expedited permitting processes, fee structures and other incentives for green buildings and other above-code developments. IP's may attend training and/or market the training to relevant trades, in coordination with utility and statewide marketing activities.

Code Compliance Support

The Code Compliance sub-element will be implemented primarily through the Codes and Standards program, as described in the Codes and Standards PIP. Some individual Institutional Partners (IPs) will take action related to code compliance by engaging in a range of activities that will be coordinated with the Codes and Standards program.

IP's who participate in the Codes and Standards program may take advantage of the Title 24 and measure-specific training. They may also be able to participate in pilots designed to evaluate and improve the process used by governments to conduct code compliance.

Because optimization of existing compliance is the most effective approach to code compliance, IP's will be encouraged to start with this goal before tackling additional LEED certification requirements. IP Code Compliance activities may include referral to SoCalGas's Codes and Standards program for training staff that are charged with code compliance. IP activity may also include referral to SoCalGas's Codes and Standards program to access certification programs for inspectors and contractors. IP's may assist with marketing in coordination with SoCalGas and statewide marketing activities, including advertising training opportunities to relevant trades, raising awareness of current codes among business and residential customers and encouraging compliance by accessing a suite of resources described in the Codes and Standards PIP.

Please refer to the Codes and Standards PIP for further information.

iii) WE&T efforts
Referenced above in Master PIP Section 4, 3a.

iv) Program-specific marketing and outreach efforts (provide budget)

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Outreach, Education and Training Element

The various partnerships will seek opportunities to increase awareness and understanding of energy efficiency as appropriate. In all cases this involves reaching upper management and/or elected officials to gain the support of decision makers for energy efficiency projects. It also involves reaching out to other departments within the customer organizations so that mid-level management of these departments will be responsive to and supportive of energy efficiency within the buildings in their jurisdictions. Likewise, it is important to train the day-to-day operating staff within the various facilities management organizations so that the designers, planners, and technicians are aware both of the importance of energy efficiency and the means by which it can be achieved. For institutional partnerships, education and training will be extended to elected officials, managers, and operations staff. Partnerships with educational institutions, it will involve educating faculty on energy efficiency so that they in turn may pass on the knowledge to their students.

The partnerships' education and training will also leverage existing utility training programs provided through the various training centers such as Southern California Gas' Energy Resource Center (ERC). In some cases, multiple partnerships may work together to provide education and training that is available to all of their constituents and thereby increase the availability and flexibility of the training programs. Specialized training sessions may be held at venues within the customer's facilities in order to minimize hardship on customer personnel and maximize attendance.

The education and training component also includes partnerships' outreach. Outreach is typically internal to the customer's organization, as the large and complex institutions that make up the partners have thousands of employees and many different departments. In many cases communication between the various departments of the organization is not well organized and information flow is slow or non-existent. The partnership will assist in the outreach to these ancillary departments in order to increase the awareness and understanding of energy efficiency. Partnerships will also reach out to similar but independent government agencies within their geographic regions; in particular, the county partnerships will reach out to cities, school districts, and other local agencies in order to bring them aboard. Partnerships will utilize existing infrastructures to accomplish outreach activities and others will rely more heavily on assistance from the utility partner and/or partnership consultants.

The education and training activities will include workshops for facility managers. They will receive training on best practices for implementation of energy efficiency retrofit projects, building operations, and new technologies that may be applicable to the effective completion of their daily tasks. Participants will have an opportunity to explore the utility programs currently available. In addition, the partnerships will provide opportunities for participants to share best practices with other facility managers.

Workshops will be coordinated and delivered in conjunction with other partnership efforts. In addition, the partnership team will coordinate with existing training centers such as SoCalGas's Energy Resource Center, Southern California Edison's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AgTAC), San Diego Gas & Electric'sEnergy Innovation Center, and PG&E's Pacific Energy Center and Energy Training Center to deliver various technical training courses to improve the skills and knowledge of facility staff.

The training of multiple groups and types of personnel within the institutional partners will help ensure partnership coordination of the project implementation process and coordination and cooperation of all key players from all departments within the organization.

The primary objectives of the education and training programs are to produce cost-effective energy savings. This will help the partners to comply with the requirement of Executive Order S-20-04 and their goals to reduce energy consumption. This will be achieved by:

- Increasing transfer of energy efficiency knowledge and implementation experience.
- Increasing awareness and knowledge of the benefits of energy efficiency initiatives.
- Integrating efforts between partnership activities and utility programs offerings.
- Reducing the number of projects that are implemented without attention to energy efficiency.
- Increasing the number of institutional departments and/or local government agencies that use energy efficiency as a key decision-making parameter.
- Increasing communication between and building camaraderie among various key personnel in the facilities management groups of many departments, agencies, and organizations.

Sub-program specific activities are referenced in each sub-program PIP Section 6, iv.

v) Rationale for selection of sub-contractors;

Subcontractor Activities

Subcontractors may be used to assist in program administration and management, and will provide professional and technical support for the implementation of each of the program elements. A program consultant will assist in day-to-day coordination and communication among the Institutional Partners as follows:

- Provide staffing to the Management Team and program specific subcommittees and implementation teams
- Coordinate, schedule, and document results and action items from program team meetings
- Prepare and conduct formal presentations and participate in conferences as required by the Management Team
- Develop and maintain a Project Tracking and Reporting database system.
- Assist the IOUs and Partners in CPUC reporting and regulatory communications.
- Assist in the development of workshop agendas and materials, identification of experts, facilitation of workshops and training sessions, and preparation of minutes for the Training and Education component
- Miscellaneous professional and technical assistance as requested by the IOUs

Program Management Structure

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Partnerships will continue to be administered by management teams consisting of representatives from IOUs and partnership management. A program administrator and management subcontractor for the CDCR, CCC, and UC/CSU partnerships will track project progress and keep the lines of communication and information consistent. The management structure of the partnership has allowed for a more streamlined approach and flexibility in overall program administration.

The management team will set overall program policy and ensure that the program stays on plan throughout its life cycle, and will meet roughly every three weeks. Subcommittees or "teams" made up of members of the management team and other representatives will perform the detailed work associated with the program elements, and make recommendations to the management team for action. This will potentially include a retrofit team, MBCx Express Team, an outreach team, and/or a training and education team. The team will be providing a more coordinated and integrated approach and will increase the penetration of energy efficiency and avoid lost opportunities.

Key Activities of Management Teams include:

Key Activity	Description
Identify key stakeholders to participate	The partnership management team identifies key stakeholders in each agency. They may be selected to participate in the project team.
Conduct solicitation for potential projects from participating agencies	The retrofit project team coordinates with the customer to generate a pool of projects to be evaluated.
Compile and evaluate projects based on project criteria and cost effectiveness requirements.	The retrofit project team performs due diligence on proposed projects to determine if each project meets the criteria and cost-effectiveness requirements. The project team provides a list of recommended projects.
Approve projects for funding	The partnership management team reviews project team recommendations for potential projects.
Identify funding sources	The partnership team and participating state agency explore financing alternatives such as rebates and incentives, on-bill financing, application of existing budget, and Energy $Mart financing to maximize the state's investment in energy efficiency.
Coordinate project implementation with partners and contractors.	The project team provides oversight of project implementation and coordinates with customer and contractors to ensure successful and timely implementation.
Verify project installation and provide incentive payments.	The project team conducts 100% inspection. Upon verification, project team approves the completed projects for incentive payments.
Compile project results and complete final	The project team compiles all relevant project

Key Activity	Description
report.	information including measure information; energy savings; program incentives paid; etc.
Coordinate with EM&V contractor where applicable.	If required, management team coordinates with the project teams and key stakeholders to support any requests from the CPUC approved EM&V contractors.

Partnerships can also hire energy efficiency retrofit subcontractors to install the energy efficiency measures for the retrofit component, and commissioning agents to assist in the performance of MBCx projects. Partnerships may also hire engineering subcontractors to assist with project development, as needed.

vi) *Non-energy activities of program*

If applicable specific non-energy activities will be listed in sub-program PIPs Section 6, vi.

Guiding Document Support

Guiding document support will be provided by IOUs and will influence the partnerships through collaborative efforts that bring about the adoption of higher standards for energy efficiency. In addition, a tool will be developed for decision makers. This will enable customers to utilize this tool for guiding future decision making process and energy policy development that will align with the CLTEESP.

Technical Assistance

The Partnership will focus on technical assistance and help the Partner to identify projects for potential implementation. The Partnership team will prepare comprehensive lists of projects, evaluate their energy savings potential, and bring them to the team for review. The Partners can then use this information to accelerate the timing of some projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules, for energy efficiency enhancements. Some technical assistance may include:

1. Training and Education
2. Energy Audits
3. Design assistance
4. Due diligence/Project Review

vii) *Non-IOU Programs*
If applicable will be detailed in sub-program PIPs, Section 6, vii.

viii) *CEC work on PIER*
Applicable PIER program coordination will be detailed in sub-program PIPs, Section 6 viii.

ix) *CEC work on codes and standards*

If applicable will be detailed in sub-program PIPs, Section 6 ix.

x) *Non-utility market initiatives*
If applicable will be detailed in sub-program PIPs Section 6, x.

c) Best Practices: Describe why program approach constitutes "best practice" or reflects "lessons learned" in market strategies, program design and/or implementation techniques. Provide references where available.

Institutional Partnerships have provided documentation that is valuable and provides lessons learned for a variety of institutional customers. Overarching best practices for institutional partnerships are noted below:

Type of Best Practice	Best Practice	Institutional Application(s)
Goals & Objectives	Develop and use clearly articulated objectives that are internally consistent, actionable and measurable.	Share clearly defined and obtainable goals that are developed with partner input. Track goals through bi-weekly management team meetings to ensure they are achieved.
	Develop tools to track the portfolio's performance on a continuous basis and report progress.	The detailed program plan and the Program Advisor handbook is a living document that will facilitate continuous tracking and reporting.
Planning	Design programs within the portfolio based on sound program plans; where appropriate, utilize clearly but concisely articulated program theories.	The plan & program structure are based on sound program plans & theories.
	Conduct baseline research	Baseline research was conducted of each Partnership and the individual participating cities & counties.
	Build feedback loops into program design and logic	The partnership program structure calls for a mechanism that closely monitors progress and making adjustments as may be needed to meet the Partnership goals and objectives.
	Maintain the flexibility to rebalance portfolio initiatives, as needed, to achieve the portfolio's goals and objectives.	
Staffing	Select highly qualified in-house staff &/or outside contractors to manage, design, implement and evaluate programs.	SoCalGas Program Advisors have been assigned to each Partnership to assure continuous open communication and implementation success. SoCalGas's resources will be supplemented with pre-qualified technical support to meet the needs of its Partners.
	Clearly define portfolio implementation responsibilities and clarify roles to minimize confusion.	
Integration	Leverage relationships from complementary organizations such as utilities, trade allies, and industry specialists.	Structured to leverage all resources, assets and relationships of SoCalGas ~~CE~~, its Partners, and their participants, constituents, stakeholders, and other related individuals & organizations.
Reporting & Tracking	Clearly articulate the data requirements for measuring portfolio and program success.	Frequent meetings between/among SoCalGas, its Partners and their members/constituents are designed to track and report Partnership progress and successes.
	Design tracking systems to support the requirements of all major users: program administrators, managers,	

Type of Best Practice	Best Practice	Institutional Application(s)
	contractors and evaluators.	

- Specific best practices are referenced for each specific partnership in Sub-Program PIP I, II, III, IV, Section 6, b.

d) *Innovation: Describe any unique or innovative aspects of program not previously discussed. Why is this innovative?*
Innovative aspects of programs will be detailed in sub-program PIPs, Section 6, d, if applicable.

e) Integrated/coordinated Demand Side Management: Describe in detail how program will achieve integrated or coordinated delivery of all DSM options (energy efficiency, demand response, and onsite generation) where applicable including integrated program design and delivery, shared budgets, program evaluation, and incentive mechanisms that promote greater integration of DSM resources. Provide a complete description for all the technologies, including integration supporting technologies that will be included in the program. If the program does not include all DSM options as noted above, briefly provide an explanation for a more limited subset of DSM technologies. Utilize Attachment 5A to highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).

SoCalGas supports the loading order in which our partners can achieve the highest level of integrated energy efficiency savings. Some of our partnerships have completed the Analysis (1) and Energy Conservation (2) efforts prior to becoming fully engaged into Partnership programs.

Once engaged into partnership programs, customers and partnerships focus on the Energy Efficiency aspect of integrated programs before moving onto Self Generation (5) or Demand Side Management (6). Moving partnerships into Self Generation or Demand Side Management at a premature time may act to mitigate energy savings and not realize energy savings.
Most partnerships remain focused on the Energy Efficiency aspect of integrated energy efficiency programs to maximize energy efficient efforts. The partnerships continue to focus on the ever demanding requests of Self Generation and Demand Side Management. Many institutional partners are under significant pressure from government mandates to implement Self Generation and Demand Side Management technologies. Partnerships have included Self Generation and Demand Side Management into implementation plans to meet these demands but also focus on the importance of appropriate energy efficiency management.

Integration of programs such as Self Generation and Demand Side Management require partnerships to develop innovative ways to share allocated budgets and developed goals. When plausible and cost-effective, partnerships will leverage

off existing program delivery channels and budgets to provide Self Generation and Demand Side Management.

f) Integration across resource types (energy, water, air quality, etc): If program aims to integrate across resources types, please provide rationale and general approach.

If applicable this item will be detailed in the sub-program PIPs, Section 6, f.

g) Pilots: Please describe any pilot projects that are part of this program

If applicable this item will be detailed in the sub-program PIPs, Section 6 g.

h) EM&V: Describe any process evaluation or other evaluation efforts that will be undertaken by the utility to determine if the program is meeting its goals and objectives. Include the evaluation timeframe and brief description of scope, as well as a summary of specific methodologies, if already developed. If not developed, indicate the process for developing them. Please include, as well, whether there are program-tracking databases that will be needed for evaluation purposes.

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for –2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

6. Diagram of Program: Please provide a one page diagram of the program including sub-programs. This should visually illustrate the program/sub-program linkages to areas such as:

a. *Statewide and individual IOU marketing and outreach*
b. WE&T programs
c. Emerging Technologies and Codes and Standards
d. Coordinated approaches across IOUs
e. Integrated efforts across DSM programs

7. Program Logic Model:

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

1. Program Name: California Department of Corrections and Rehabilitation/Investor Owned Utility Statewide Energy Efficiency Partnership
Program ID: SCG 3738
Program Type: Institutional Partnership

2. Projected Program Budget Table

Program #	Main/Sub Program Name	Administrative Amount	Marketing Amount	Direct Implementation Amount	Incentive Amount	Total Program Budget Amount
	Local Institutional Partnership Programs					
3738	SoCalGas Department of Corrections Partnership	$146,581	$120,606	$249,124	$0	$516,594
	TOTAL:	$146,581	$120,606	$249,124	$0	$516,594

3. Program Description

a) Describe Program

SoCalGas and the California Department of Corrections and Rehabilitation (CDCR) are collaborating to continue the Department of Corrections and Rehabilitation/Investor-Owned Utility (IOU) Partnership for the 2013 - 2014 cycle. The CDCR/IOU partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOUs.

This program capitalizes on the vast opportunities for efficiency improvements and utilizes the resources and expertise of CDCR and IOU staff to ensure a successful and cost-effective program that meets all objectives of the California Public Utilities Commission (CPUC or Commission). The program also leverages the existing contractual relationship between CDCR and Energy Service Companies (ESCOs) to develop and implement energy projects at CDCR facilities statewide. CDCR is comprised of Adult Institutions, Parole Offices, Community Conservation Camps, and Juvenile Facilities which encompass an estimated 47,714,415 square feet of occupied space.

In the 2006-2008 and 2010 - 2012 program cycles SoCalGas and the other IOUs collaborated with CDCR facility staff to identify opportunities for energy efficiency projects by conducting audits at each location and compiled equipment information to create a pool of projects for implementation. CDCR worked diligently to remove barriers that had previously prevented energy efficiency projects from being implemented with state agencies. The IOU Management team executed an agency specific agreement with CDCR to capitalize on the agency's authority to complete on-site facility construction and renovation. Unlike other state agencies, CDCR has an Office of Facilities Management that handles all construction and operates independently from the Department of General Services (DGS). Based on past success the IOU Management team will facilitate another agency specific agreement with CDCR for the 2012-2014 program extension.

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CDCR initiated a Request for Proposal (RFP) to procure contractors, engineering subcontractors, and Energy Services Companies (ESCOs) to assist with project implementation at all statewide prison facilities. CDCR was also one of the first agencies to take advantage of the Energy $mart financing program available through the Department of Finance (DOF) and administrated by the Department of General Services (DGS) to finance their energy efficiency projects. Energy $mart financing has provided over 4.7 million dollars coupled with IOU incentives to fund energy efficiency projects at CDCR facilities. Energy $mart loans have been the main source of financial funding for CDCR energy efficiency projects and will continue to act as the primary source in the next program cycle.

Subsequently, the IOU Management Team initiated a RFP to procure an energy engineering and consulting firm devoted exclusively to the CDCR/IOU partnership program. The IOU Management Team has developed a cost-sharing model to help fund the Project Administrator dedicated to CDCR energy efficiency activities.
Future projects will continue to adopt a comprehensive approach by incorporating retrofits, new construction, and Demand Side Management (DSM) alternatives to include: demand-response, renewable self-generation, solar hot water and water efficiency. SoCalGas, CDCR, and the other IOUs are confident that this partnership will be very successful through the next three-year cycle and are committed to expanding the program in the future.

b) List Measures

Measure Name	Rebate to end use customer or its assignee ($/unit)
Customized - Indoor Lighting	$ 0.24
Customized - Indoor Lighting Controls & EMS	$ 0.24
Customized - Outdoor Lighting	$ 0.24
Customized - Outdoor Lighting Controls	$ 0.24
Customized - Motors	$ 0.24
Customized - VFDs	$ 0.24
Customized - HVAC EMS	$ 0.24
Customized - Chillers	$ 0.24
Customized - HVAC	$ 0.24
RCx/MBCx	$ 0.24
Overall Building Performance	$ 0.10 above core
System Approach - Light Power Density	$ 0.10 above core
System Approach - Chillers	$ 0.10 above core
System Approach - Daylighting	$ 0.10 above core
System Approach - HVAC Energy Reduction	$ 0.10 above core

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

1. Training and Education
2. Energy Audits
3. Technical Assistance
4. Design assistance
5. Due diligence/Project Review
6. Marketing/Outreach
7. Support of Assembly Bill 32, 900, Senate Bill 20-04

4. Program Rationale and Expected Outcome

d) Quantitative Baseline and Market Transformation Information:

	Baseline Metric		
	Metric A	Metric B	Metric C
Program/Element	N/A	N/A	N/A

Refer to the overarching PIP section.

e) Market Transformation Information:

	Market Transformation Planning Estimates	
Program/Element	2013	2014
Metric A	N/A	N/A
Metric B	N/A	N/A
Metric C	N/A	N/A
Etc.	N/A	N/A

Refer to the overarching PIP section.

f) Program Design to Overcome Barriers:

The CDCR/IOU is a mature program that has a repeatable process for creating a project pipeline, seeking project approval, procuring project funding, implementing the project, monitoring the project, and inspecting. That does not mean the program does not have its challenges that affects implementation. These challenges/barriers are:

- Barrier: Project Funding Constraints – With the challenges the state is facing with their budgetary constraints, great opportunities for energy efficiency projects are not easily addressed.
  - Solutions:

- AB 1392 has allocated remaining federal American Recovery and Reinvestment Act (ARRA) money to finance energy projects through the Department of General Services.
- The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades.
- Increase the purview of CEC loans to include other State facilities.
- IOUs to develop other innovative financing options.

- Barrier: High cost for project overhead: CDCR is unique in that not only must the department account for traditional project costs it must also account for additional labor and facility access. ESCOs have limited timeframes and access to facilities. Additionally, guards must be assigned at each location for additional security.

Solution: The partnership will continue to offer high incentive rates to adjust for additional costs and to make projects viable.

g) Quantitative Program Targets.

See Master PIP Section 2

h) Advancing Strategic Plan goals and objectives

See Master PIP Section

5. Program Implementation

a) Statewide IOU Coordination:

i) Program Name
California Department of Corrections and Rehabilitation/Investor Owned Utility Statewide Energy Efficiency Partnership

ii) Program Delivery Mechanisms
Delivery mechanisms, program elements, and subcontractor activities are detailed above in Master PIP Section 4, a and Section 6, a, ii.

CDCR does not utilize additional delivery mechanisms at this time. A detailed table of management activities for project delivery is provided below.

iii) Incentive Levels

- Lighting projects- $0.24/ kWh
- Motors/ VFDs/ Compressors/ Controls/ Others- $0.24/ kWh
- HVAC projects with electric savings- $0.24/ kWh
- Projects with gas savings- $1.00/ Therm
- Savings By Design/ Commercial New Construction Projects- $0.10/ kWh above core SBD incentive rate

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The CDCR/IOU partnership will rely on existing communication between the CDCR institutions and Operation and Maintenance (O&M) staff. This combined with the partnership management team structure will facilitate marketing activities through pre-established channels.

Key Activity	Description
Outreach	The partnership management team and program administrator will use preexisting communication channels to disseminate information throughout CDCR. Since the partnership is an agency specific agreement all interested parties are represented on the management team. Other pertinent parties are addressed my management team on an as needed basis.
Customer Follow-Up	CDCR partnership is an agency specific program. Follow-up is conducted at management team meetings held every 3 weeks.
Implementation and Training	The partnership management team and program administrator share energy efficiency knowledge and implementation experience with all pertinent parties through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs as necessary.
Facility Audits	SCG will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

IOUs are continuously monitoring their respective local government partners to leverage off best practices and new/innovative programs. IOUs are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CDCR medical facilities. In regards to the ARB there is constant observation on air pollution policies to help CDCR meet the mandate of AB 32.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offerings where practicable to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If POUs have interest in implementing EE programs, the partnership shall provide technical assistance in designing these programs if requested.

b) <u>Program delivery and coordination:</u>

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The CDCR/IOU Partnership is in a unique position in which by collaboration, has certain delivery and coordination activities made possible by the agreements that are in place as required when entering into the partnership. Below are types of coordination activities already in place within the partnership:

i. Emerging Technologies Program

If opportunities allows, the IOUs bring forth emerging technologies to the partner either through PIER project opportunities or the management team's introduction of technology demonstration projects.

ii. Codes and Standards Program

Referenced above in the Master PIP

iii. WE&T Efforts

WE&T type of activities is an integral part of the MBCx strategy where facilities staff are trained to maintain building optimization adding value to their skill sets and further securing their need in the workforce

iv. Program-specific marketing and outreach efforts

The outreach efforts for the partnership involves the Energy Management Section of the Facilities Management Division working directly with the individual prison sites

v. Non-energy activities of program

Non energy activities include the technical assistance the partner may need but do no have the resource available in house. The program provides this kind of support as an added benefit to the partner in addition to the monetary incentives they may receive from the IOUs. CDCR however has adequate resources with ESCOs on board.

vi. Non-IOU Programs

N/A

vii. CEC work on PIER
PIER technology projects are introduced into the programs at the project level when opportunities arise.

viii. CEC work on codes and standards

ix. Non-utility market initiatives:

c) Best Practices:

Reference Master PIP

d) Innovation:
N/A

e) Integrated/coordinated Demand Side Management:

f) Integration across resource types (energy, water, air quality, etc):

SoCalGas is exploring the option of including CDCR in a pilot water research program. Initial discoveries show that similarities exist between pilot facilities and CDCR's unique facilities.

g) Pilots:

No pilots are proposed at this time.

h) EM&V:

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for –2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

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1. Program Name: California Community College/Investor Owned Utility (CCC/IOU) Partnership Program
Program ID: SCG 3739
Program Type: Institutional Partnership

2. Projected Program Budget Table

Program #	Main/Sub Program Name	Administrative Amount	Marketing Amount	Direct Implementation Amount	Incentive Amount	Total Program Budget Amount
	Local Institutional Partnership Programs					
3739	LInstP-California Community College Partnership	$195,763	$142,864	$364,808	$0	$703,435
	TOTAL:	**$195,763**	**$142,864**	**$364,808**	**$0**	**$703,435**

3. Program Description

a) Describe Program

The CCC/IOU Energy Efficiency Partnership has been a successful collaboration between the California Community Colleges (CCC) and the four Investor-Owned Utilities (IOUs). The CCC is a two-year public institution of higher education that is composed of 112 colleges statewide and organized into 72 self-governing Districts. It serves more than 2.6 million students coming from a wide range of cultural and economic backgrounds, and represents the largest system of higher education in the world. SoCalGas alongside the other IOUs (PG&E, SDG&E and SCE), will continue this collaboration, which started with the 2006-08 CCC/IOU Energy Efficiency Partnership, to share best practices and implement energy efficiency programs and projects for immediate and long-term energy savings and peak demand reduction.

This partnership provides a unique opportunity to deliver cost effective energy savings while leveraging the CCC's local and statewide new construction bond funding. The 2013 – 2014 CCC/IOU Partnership will expand its efforts for the implementation of energy-efficient Retrofits, New Construction Design Assistance facilitated by the Savings By Design program, Demand Response, Retro-Commissioning (RCx), and Monitoring-Based Commissioning (MBCx) projects. The program will also focus its efforts on training and education, which will expand existing education programs by training faculty and staff in best practices on energy efficient technology implementation and energy management.

Projects will adopt a comprehensive approach by including retrofits and their DSM alternatives to include: demand-response, DG (renewable self-generation), solar hot water and water efficiency.

The –2013 - 2014 CCC/IOU Partnership will expand its efforts in the delivery of energy efficiency and provide the following program elements:

- Energy-efficient retrofits of equipment and systems
- New construction design assistance. This will be a focus of the partnership due to the significant bond-funded construction of new and renovated facilities that are occurring at the CCC's at an unprecedented rate.
- Retro-commissioning/monitoring-based commissioning (RCx/MBCx) projects.

- Provide a "portal" to other IOU energy programs for a coordinated, integrated DSM program
- Training & education program, which will provide training to facility maintenance and operations staff in best practices on energy efficient technology implementation and energy management.
- Explore opportunities to partner with existing curriculum development efforts to train the next generation of the "green workforce", which has been identified as a critical component for California's future economy.

b) List Measures

Measure Categories	Technologies
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the HVAC categories.
HVAC, Air Conditioning and Refrigeration	Includes system and major subsystem replacements
Other	New Construction, RCx, MBCx, and others

Incentives

Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed-upon energy savings determined as part of the project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.
Incentive rates for the Partnership will be as follows:

- Lighting- $0.24/kWh
- Controls and other Equipment- $0.24/kWh
- HVAC, Air Conditioning and Refrigeration- $0.24/kWh
- All gas savings will be at $1.00/Therm
- Savings by Design/ Commercial New Construction Projects- $0.10/ kWh above core SBD incentive rate

c) List non-incentive customer services

The California Community College/ Investor Owned Utility Partnership will include non-energy activities such as creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials through said conferences as well as training sessions.

A training and education component for campus design staff, project managers, energy managers and others will also be provided in using best energy practices in the construction, retrofit, and monitoring based commissioning of campus buildings and central plant infrastructures.

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Subcontractor Activities

Subcontractors will be used to assist in program administration and management, and will provide professional and technical support for the implementation of each of the program elements. A program consultant will assist in day-to-day coordination and communication among the partners (the colleges, System office, and four utilities) as follows:

- Provide staffing to the management team and program specific subcommittees and implementation teams
- Assist in program planning and design areas such as:
    - Program narrative preparation for filings
    - Organization of financial budgets
    - Preparation of program energy savings estimates and E3 cost-effectiveness calculators
    - Providing assistance in the development of marketing and outreach plans
- Coordinate, schedule, and document results and action items from program team meetings
- Provide technical engineering assistance to develop projects and ensure that project documentation complies with CPUC energy efficiency policy and supports EM&V assessments.
- Prepare and conduct formal presentations and participate in conferences as required by the Management Team
- Develop and maintain a project tracking and reporting database system.
- Assist the IOUs and CCCs in CPUC reporting and regulatory communications
- Assist in the development of workshop agendas and materials, identification of experts, facilitation of workshops and training sessions, and preparation of minutes for the training and education component
- Miscellaneous professional and technical assistance as requested by the IOUs

The campuses will hire:

- Energy efficiency subcontractors to install the energy efficiency measures for the retrofit component
- Consultants and contractors to assist in the performance of MBCx projects
- Engineers and architects to assist with the New Construction Design Assistance element. Campuses may also hire engineering consultants to assist with project development as needed.

As seen in the 2010-2012 partnership, the campus facilities management staff will play a major role in this program component while enlisting the assistance of subcontractors.

Non Incentive Services	Delivery Mechanism
Education and Training	Delivered through the creation of presentations for industry and association conferences, attending various conferences, meetings and outreach events, and distributing marketing materials through education programs. Training energy managers, facility maintenance staff and design staff, project manager and others in using best practices in the construction, retrofit, retro-commissioning and monitoring based commissioning of buildings and central plant infrastructure.
Emerging Technologies	Delivered through coordination with SoCalGas's Emerging

	Technologies group. The CCC/ IOU Partnership Program will work with the ETP group to develop potential pilots for emerging technologies development.
Funding Sources	Federal grants, state financing, local bonds, and IOU incentives. Further coordination and integration of SoCalGas's On-Bill Financing Program to assist in the funding of energy efficiency projects.
Subcontractor Activities	Subcontractors may be used to assist in program administration and state wide coordination among partners.
Program Administration and Management	Utility program managers will: Identify project tasks and establish schedule of deliverables and responsibilities to ensure the deliverance of successful program implementation, obtain inputs from the partners, facilitate the decision-making on key program elements while coordinating partnership team communications, provide analytical assistance as needed, and submit accurate program information for reporting to the CPUC.
Quality Assurance and Evaluation	The New Energy Efficiency Partnerships team will establish and oversee quality assurance measures for the partnership program, including oversight and verification of subcontractor activities. These procedures and the associated reporting will be developed in more detail as a part of program implementation. In general, the partnership will continue the level of due diligence and quality assurance of the present IOU energy efficiency offerings, including a representative percentage of pre/post installation confirmation inspections for small hardware projects, and pre/post inspections on all large or specialized/ hardware projects (installation of energy efficient equipment, facility retrofits, and building commissioning and new construction projects).
Codes and Standards	The other key element will be the refinement and further adoption of voluntary policies and requirements by the customers for energy efficiency and sustainability to create incrementally more efficient buildings in parallel with the adoption of more stringent, mandatory Codes and Standards by local and state jurisdictions.

4. Program Rationale and Expected Outcome

a. Quantitative Baseline and Market Transformation Information:

	Baseline Metric		
	Metric A	Metric B	Metric C
Program/Element	N/A	N/A	N/A

Refer to the overarching PIP section.

b. Market Transformation Information:

	Market Transformation Planning Estimates	
Program/Element	2013	2014

Metric A	N/A	N/A
Metric B	N/A	N/A
Metric C	N/A	N/A
Etc.	N/A	N/A

Refer to the overarching PIP section.

c. Program Design to Overcome Barriers:

SoCalGas and the other IOUs face the challenge of implementing cost effective energy efficiency programs that will result in immediate, long-term peak energy and demand savings in their service territories. The CCC system consumes vast quantities of energy and make up a significant portion of the both the electric and natural gas load in the State of California. However, due to the decentralized and self-governing structure of the CCCs, as well as the lack of funding and resources at these campuses, it has been an extremely challenging process to assist these districts in implementing energy efficient measures and practices.

The existing partnerships have worked diligently to overcome these barriers, though many still exist. The effort to resolve them is on-going, and significant progress has been made. At the heart of the evolving success are the partnership teams made up of customer staff, utility staff, and consulting professionals. These teams enable the partnerships to overcome these barriers through a number of important mechanisms:

Primary Barriers	Strategies to Overcome Barriers
Funding Levels- Project Funding Constraints. Energy efficiency is costly and budgets are limited. The actual decision-makers approving the details of a project often choose not to implement the higher-costing more-efficient systems, equipment, or technologies. Incentive dollars are most often allocated to the general fund which makes for an inability to ensure incentives are allocated toward the participating department budget.	Incentives help relieve budgetary constraints and assist the economic evaluations of the customers by making energy efficiency more cost-effective. In addition to their purely economic role, the incentives play an important part in promoting the importance and visibility of energy efficiency. When a partnership can bring an incentive to the decision-making body and make a public announcement, it not only improves the economics, but it demonstrates the importance of the project and increases public awareness of both the utility's and the customer's commitment to energy efficiency and environmental quality. The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services. SoCalGas's On-Bill Financing Programs is currently being implemented as a way of financing retrofit and modernization upgrades.
Short-sightedness- Economic decisions are often short-sighted, with capital limitations taking precedence over long-term savings, even when accurate economic analysis would select the higher initial cost of higher-efficiency choices.	Education and training brings energy efficiency awareness to decision-makers at all levels. Many of the partnerships have specific plans to incorporate education and training for a variety of people including elected officials, key department managers, facilities staff, personnel from other local governments (such as cities and school districts within the counties), and, in the case of the college partnerships, training within the general population. This component will enhance the awareness of energy efficiency, which in turn

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Primary Barriers	Strategies to Overcome Barriers
	will subdue some of the barriers caused by lack of information or erroneous economic analysis.
Technology- itself is rapidly developing, and even the best-informed energy professionals have difficulty distinguishing between sales propaganda and truly valid technical advancements.	Integration allows the partnership management team to be the single source of contact that enables the institutional customers to take advantage of all energy programs offered by the IOUs. This integration will break down many customer barriers to participation in multiple programs. This integration is innovatively being collaborated with internal utility departments in order to fulfill this strategy. Future strategic plans are being developed to include new construction, emerging technologies, education and training, demand response, California Solar Initiative (CSI), self-generation, on-bill financing, and other utility programs within the scope of partnership activities.
Staffing- Staff time is at a premium, with most facilities personnel having too much to do in too little time. Attention to proper energy efficiency is time consuming and may get shelved as staff members work on more immediately urgent problems. Community College campuses tend to have inadequate staffing due to the current staff being overextended; additional technical assistance desired.	Professional assistance from utility staff and partnership consultants allows potential projects to be identified and evaluated. Many institutional customers do not have the time to methodically evaluate their buildings and identify the most salient energy efficiency projects. Furthermore, facility personnel often lack the technical expertise to evaluate those projects and determine the best energy efficiency improvements. The partnership team is able to prepare comprehensive lists of projects, evaluate their energy savings potential, and bring them to the team for review. The customer can then use this information to accelerate the timing of selected projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules for energy efficiency enhancements.
Information Dissemination- Some of the agencies lack the technical expertise to develop or manage projects. Therefore they lose out on opportunities to improve efficiency when staff is unaware of available technology and measures. Lack of funding and management support also causes the removal of such measures from a project.	The management team is currently developing an information tool for some agencies that will help reveal the savings potential of implementing projects with likely energy efficiency measures that may appear in agencies' typical facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.
Gap in ESCO Process and Small Projects– The prior program cycle revealed to the management team that while the ESCO process and Energy$mart project financing mechanism works for the larger projects, smaller projects cannot pass the Life-Cycle Cost Analysis and the ESCOs do not find the projects attractive. 95% of the state's building inventory is under 25,000 sq. ft. which indicates the majority of the projects are smaller.	The management team is exploring alternative project delivery and financing models which may include a mechanism that creates seed money for starting up projects and integrating it with the On-Bill Financing program. This would be augmented by innovative pilot project delivery models such as the project co-funding approach, low to no cost measure offerings, and third party program bridging to pilot concepts that may fill gaps in the program.

We anticipate the partnership will continue to work through the various obstacles that inhibit the full implementation of energy efficiency within their institution. This is a gradual and evolving process. Nonetheless, the partnership model has shown to be extremely effective, and leads to

considerable energy savings and demand reduction both in new construction and in existing buildings. For the California Community Colleges, budget requirements are becoming even tighter. The continuation of the partnerships will help assure that these barriers do not become even more significant as budgets are reduced.

d. Quantitative Program Targets:

Program Name	Program Target by 2013	Program Target by 2014
New Construction	Communicate Integration and incentive structure. Identify a minimum of 2 new projects.	Develop project agreement plan to ensure penetration of all existing and future potential projects. Identify a minimum of 2 new projects.
On-Bill Financing	Development of On-Bill Financing documentation package for partners. Develop project agreement plan and determine whether partners will participate. Identify 2 new projects..	Identify a minimum of 3 new projects.
CSI	Establish communication plan for ensuring partners have been educated regarding solar potential	Develop project agreement plan and determine necessary stakeholders.
RCx and MBCx	Benchmark at least 2 facilities to determine for RCx or MBCx.	Complete project agreement packages for a minimum of 2 facilities.
Education and Outreach	A minimum of 4 Partner Presentations.	A minimum of 4 Partner Presentations.
EE/DR Audits	Ensure 100% of all audits are coordinated EE/DR efforts if applicable	Ensure 100% of all audits are coordinated EE/DR efforts if applicable

e. Advancing Strategic Plan goals and objectives:

Institutional partnerships are a natural fit with the goals, objectives, and strategies articulated in the California Energy Efficiency Strategic Plan. The partnerships have demonstrated that the three *Pillars* of the Strategic Plan -- Innovation, Integration, and Collaboration -- are indeed the key to achieving the next generation of cost-effective energy efficiency and the resulting reduction in greenhouse gas emissions.

The partnership management teams have and will continue to:

- Be very successful in developing a collaborative approach
- Overcome many of the barriers that diverse stakeholder groups encounter

- Successfully navigate these challenges, improve communications, firmly identify roles and responsibilities, and develop a continuity of both people and a management approach that works very well for their own partnerships.
- Firmly align goals: saving energy, improving the environment, and saving money for the institutional customers.
- Embrace Monitoring Based Commissioning (MBCx) and Retro-commissioning (RCx) at their facilities as a result of the 2010-2012 partnership.
- Some of the partnerships have also worked with the PIER SPEED program, which has resulted in the installation of several pilot projects in 2007.
- Work with the PIER and IOU ET teams to leverage the pilot projects into larger scale emerging technology programs and projects in –2013 - 2014.
- Work with the IOU Food Service Technology groups in an outreach effort to educate food service, maintenance, and facilities decision makers in the newer energy efficiency technologies emerging in this area. Innovation in the food service technology sector will be an important focus for the partnerships in –2013 – 2014 transition period.
- Lead the deployment of many information technology energy efficiency measures. Retrofit measures have included server virtualization, PC power management, and high-efficiency UPS systems.
- Been innovative in setting policy for energy efficiency and sustainability.
- Ramp up voluntary policies and requirements that fit with the Strategic Plan initiative in the *Codes and Standards* area to adopt voluntary energy efficiency standards as a precursor to progressively more stringent mandatory building codes and standards.

5. Program Implementation

f. Statewide IOU Coordination::

i. Program Name

California Community College/ Investor Owned Utility (CCC/ IOU) Partnership Program

ii. Program Delivery Mechanisms

The 2013 - 2014 CCC/ IOU Energy Efficiency Partnership Program will utilize and build upon the implementation strategies employed in the partnership from the 2010-2012program cycle. The implementation plan for this cycle will be refined to account for progress already made which will include:

Program Management Structure

The management structure of the partnership will be further streamlined from the 2010-2012 cycle to allow for more flexibility in overall program administration, outreach, project identification and development, and project implementation and verification. The program will continue to be administered by a management team, consisting of representatives from the California Community Chancellor's office, representatives from the local community college

districts, , all four IOUs, and a program administration and management consultant who will track project progress and keep the lines of communication and information flowing. The management team will set overall program policy and ensure that the program stays on plan throughout its life cycle. One of the biggest changes from 2006-2008is to streamline implementation to combine the various responsibilities for project evaluation and implementation into a single team which will oversee retrofit, MBCx, new construction, and innovative projects. The team will be providing a more coordinated and *integrated approach* and will increase the penetration of energy efficiency to avoid lost opportunities.

Program Elements

The following program elements will operate on a statewide, *integrated* basis, providing immediate energy savings and setting the foundation for a long-term program that focuses on its sustainability and best practices.

Energy Efficiency Retrofits

The partnership outreach and/or project team will identify and develop potential retrofit projects using the project portfolio described above as a starting point, with follow up campus audits and performance of savings calculations. SoCalGas will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing. In some cases, campuses will utilize ESCOs or other engineering firms under contract to develop projects. Project applications will be submitted, or when necessary, completed by the IOUs. If approved through the IOU due-diligence review process, the applications will be executed by the campus and the IOU, and project implementation will, at that time, commence. The projects will be implemented by the CCC campus staff or their engineering and construction contractors, and the IOUs will perform verification inspection prior to payment of incentives.

The energy efficiency retrofit projects that will be performed for the program will be electric and gas saving measures including: lighting retrofits, building wide lighting controls, boiler replacements, installation of water heaters, HVAC and chiller upgrades, VFDs, and central plant projects, amongst others.

Retro-Commissioning (RCx) / Monitoring-Based Commissioning (MBCx)

This element of the program is a unique approach to obtaining savings that combines the expertise of the state facility management staff, utility and subcontractor expertise. Through these resources, a systematic, comprehensive RCx/MBCx program will be implemented in existing buildings. It will provide a cost effective approach to achieving optimized operating facilities, save both electric and gas energy, reduce operating cost and improve occupancy comfort.

New Construction and New Construction Design Assistance

New Construction is a significant opportunity to achieve a breakthrough in energy savings at the Community Colleges. This program will be managed towards meeting the strategic energy plan goals of zero net energy for commercial buildings by 2030. The goal of the 2013 - 2014

partnership is to fully integrate the new construction design assistance program under the partnership umbrella to capture those opportunities. In addition, the partnership will consider additional incentive dollars to implement those measures that show persistent energy savings and capture the lost opportunities by those projects that have been value-engineered out of the project scope due to budget and time constraints.

Quality Assurance

The CCC/IOU team will establish and oversee quality assurance measures for the partnership program, including oversight and verification of subcontractor activities. These procedures and the associated reporting will be developed in more detail as a part of a program implementation. In general, however, the partnership will continue the level of due diligence and quality assurance of the present IOU energy efficiency offerings. This will include a representative percentage of pre/post installation confirmation inspections for small hardware projects and pre/post inspections on all large or specialized projects hardware projects (installation of energy efficient equipment, facility retrofits, and building commissioning and new construction projects).

iii. Incentive Levels

- Lighting projects- $0.24/ kWh
- Motors/ VFDs/ Compressors/ Controls/ Others- $0.24/ kWh
- HVAC projects with electric savings- $0.24/ kWh
- Projects with gas savings- $1.00/ Therm
- Savings by Design/ Commercial New Construction Projects- $0.10/ kWh above core SBD incentive rate

iv. Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

A change for the upcoming 2013 - 2014 program cycle is the refinement of the Outreach Team, which tried several models in 2010-2012, and has evolved into an effective team consisting of customer-focused IOU Account Executives, team leadership from the Community College Chancellor's Office, and key District staff. Because of the positive relationships that have been formed, the Outreach team has been able to reach the campus and District decision makers more effectively. The IOUs and consultant technical and engineering staff have also been able to quickly and accurately assess project opportunities, complete energy savings calculations, and process project applications with campuses.

The CCC/ IOU Partnership will also continue its activities with creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials to contractors, architects, and Community College staff members statewide.

Key Activity	Description

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting the heads of facilities management for each department, informing them of the availability of funds for approved measures and activities in state facilities. The team schedules meetings to discuss options, implementation criteria, benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After confirming an appropriate site for implementing measures and/or retro-commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.

v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

IOUs are continuously monitoring their respective partners to leverage off best practices and new/innovative programs. IOUs are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CCC facilities. In regards to the ARB there is constant observation on air pollution policies to help CCC meet the mandate of AB 32.

vi. Similar IOU and POU programs

g. *Program delivery and coordination:*

- Foundation building, including preparing a needs assessment, evaluating cost-benefit analysis tools for investments in WE&T, creating a WE&T web portal, establishing ongoing dialogue with key players, and forming a WE&T task force.
- Focus specific strategies on community colleges and technical training.
- Transform HVAC—including its products, companies, employees and even its customers—to develop, install and maintain highly efficient and peak-friendly systems.

The partners will provide education and training for students and facility personnel through workshops and other training strategies in collaboration with other partnerships. It will be a venue for those individuals responsible for managing energy use on campuses to share information and experiences related to facility operations, to gain knowledge of industry best practices in energy efficiency management, and for successful energy efficiency project implementation, among other issues. The other strategy for the education and training element is the development of an energy efficiency vocational curriculum that will be offered to campus students to equip them with energy efficiency knowledge which they can apply in the industry.

Lastly, this partnership will seek opportunities to improve project coordination and communication to strengthen the relationships amongst the Partners.

The primary vehicles for training and dissemination of information will be a series of training sessions and workshops (covering new construction, building operator training, retrofits, retro-commissioning, and monitoring based commissioning) to be held in Northern and Southern California. The partners will collaborate with the IOUs' technology centers to assist with course offerings and curriculum and content development and will utilize the existing material and best-practices documentation developed by other partnership programs during 2004-05 and 2006-08 program cycles.

Major Activities**:**

Key Activity	Description
Identify key stakeholders to participate	The management team will identify key stakeholders in each agency to participate in the project team.
Conduct solicitation for potential projects from participating agencies	The retrofit project team will coordinate with customer to generate a pool of projects for evaluation.
Compile and evaluate projects based on project criteria and cost effectiveness requirements.	The retrofit project team will perform due diligence on proposed projects to ensure that each project meets the criteria and cost-effectiveness requirements. Project team will provide a list of recommended projects to proceed with implementation.
Approve projects for funding	The management team will review project team recommendations for potential projects.
Coordinate project implementation with Partners and contractors.	The project team will have oversight of project implementation and will coordinate with customer and contractors to ensure successful and timely implementation of the project.
Verify project installation and provide incentive payments.	The project team will conduct 100% inspection. Upon verification, project team will approve the completed projects for incentive payments.
Compile project results and complete final report.	The project team will compile all relevant project information including measure information, energy savings, program incentives paid, etc.
Coordinate with EM&V contractor where applicable.	If required, there will be management team coordination with the project teams and key stakeholders to support any requests from the CPUC approved EM&V contractors.

Non-Energy Activities

The CCC/IOU Partnership will include non-energy activities such as creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials through education programs.

The partnership will also continue the progress made with the establishment of a statewide approach to training and building operations to facilitate long-term energy efficiency savings. The training and education component of the partnership involves training of campus design staff, project managers, energy managers and others in using best energy practices in the

construction, retrofit, and monitoring based commissioning of campus buildings and central plant infrastructures.

Subcontractor Activities

Subcontractors will be used to assist in program administration and management as well as in each of the three program elements. This approach was used successfully in the previous program cycle.

An administrative consultant will assist in day-to-day coordination and communication among the partners (the CCC and four IOUs) as follows:

- Provide staffing to the management and executive team and program specific implementation teams.
- Assist in the three program elements, especially in the coordination and facilitation of partnership meetings providing timely and accurate meeting minutes. The consultant will provide communications between the partnership and the campuses, as well as providing analytical assistance to the IOUs, CCC as needed.
    - Assist the CCC/IOU partners in providing timely and accurate program information for reporting to the CPUC.
    - Assist in development of workshop agendas and materials, and facilitation of workshops and training sessions.

The campuses will hire energy efficiency retrofit subcontractors to install the energy efficiency measures for the retrofit component, and commissioning agents to assist in the performance of MBCx projects. Campuses may also hire engineering consultants to assist with project development, as needed.

h. Best Practices:

Type of Best Practice	Best Practice	Institutional Application(s)
Goals & Objectives	Develop and use clearly articulated objectives that are internally consistent, actionable and measurable.	Share clearly defined and obtainable goals that are developed with partner input. Track goals through bi-weekly management team meetings to ensure they are achieved.
	Develop tools to track the portfolio's performance on a continuous basis and report progress.	The detailed program plan and Program Manager handbook is a living document that will facilitate continuous tracking and reporting.
Planning	Design programs within the portfolio based on sound program plans; where appropriate, utilize clearly but concisely articulated program theories.	The plan & program structure are based on sound program plans & theories.
	Build feedback loops into program design and logic	The partnership program structure calls for a mechanism to closely monitor progress and make adjustments as may be needed to meet the Partnership goals and objectives.
	Maintain the flexibility to rebalance portfolio initiatives, as needed, to achieve the portfolio's goals and objectives.	

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

Type of Best Practice	Best Practice	Institutional Application(s)
Staffing	Select highly qualified in-house staff &/or outside contractors to manage, design, implement and evaluate programs.	SoCalGas Program Advisors have been assigned to each Partnership to assure continuous open communication and implementation success. SoCalGas's resources will be supplemented with pre-qualified technical support to meet the needs of its Partners.
	Clearly define portfolio implementation responsibilities and clarify roles to minimize confusion.	
Integration	Leverage relationships from complementary organizations such as utilities, trade allies, and industry specialists.	Structured to leverage all resources, assets and relationships of SoCalGas, its Partners, and their participants, constituents, stakeholders, and other related individuals & organizations.
Reporting & Tracking	Clearly articulate the data requirements for measuring portfolio and program success.	Frequent meetings between/among SoCalGas, its Partners and their members/constituents is designed to track and report Partnership progress and successes.
	Design tracking systems to support the requirements of all major users: program administrators, managers, contractors and evaluators.	

i. Innovation:

The CCC's made significant progress in adopting innovative projects during the 2010-2012 program cycle. Projects and technologies in the high technology (IT systems) areas such as Server Virtualization, PC Power Management, and high efficiency UPS systems were a focus. Pilot Projects were established with PIER for emerging technologies such as: Integrated Classroom Lighting Systems (ICLS), Bi-Level Stairway Lighting systems, and Kitchen Demand Controlled Exhaust Hood ventilation controls. Additionally in 2008, the Partnership began collaboration with IOU Food Service Technology groups to expand energy efficiency in campus cafeterias. The plan for the 2013 - 2014 Partnership is to leverage these innovative pilot projects to a fully focused and large scale offering for the California Community Colleges.

j. Integrated/coordinated Demand Side Management.

Demand response programs provide tariff-based benefits to customers implementing demand response activities. For demand response initiatives involving the purchase and installation of equipment by SoCalGas business customers, a plan will be developed to provide a financial incentive for energy savings resulting from the equipment supplied through the partnership program.

This partnership will look for opportunities to integrate demand response and other DSM services into the program implementation plan. Resources will be leveraged to improve implementation efficiency and reduce transactional impacts on partnership staff. IOU energy efficiency and demand response program staff will collaborate with partners to conduct comprehensive audits and identify energy efficiency measures and demand response opportunities. The approach will reduce technical resources by combining EE/DR audits to

avoid duplication and collaborate on incentive offerings which will all minimize customer interruptions.

The partnership will also assist, where applicable, facility management staff that are interested in solar technology and will provide recommendations in facility operations through energy audits to improve its facilities with less costly EE/DR measures prior to implementing more costly solar technologies.

k. *Integration across resource types (energy, water, air quality, etc):*
N/A

l. *Pilots:*
N/A

m. *EM&V:*

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

6. Diagram of Program:

7. Program Logic Model:

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

1. Program Name: University of California (UC)/California State University (CSU)
Program ID: SCG 3740
Program Type: Institutional Partnership

2. Projected Program Budget Table

Program #	Main/Sub Program Name	Administrative Amount	Marketing Amount	Direct Implementation Amount	Incentive Amount	Total Program Budget Amount
	Local Institutional Partnership Programs					
3740	LInstP-UC/CSU/IOU Partnership	$258,098	$191,564	$496,399	$0	$946,060
	TOTAL:	**$258,098**	**$191,564**	**$496,399**	**$0**	**$946,060**

3. Program Description

a) Describe Program

The University of California, California State University (UC/CSU), SoCalGas and the three other Investor-Owned Utilities (IOUs) are collaborating to continue the Energy Efficiency Partnership Program to share energy efficiency best practices and to implement energy efficiency projects for immediate and long-term energy savings and peak demand reduction.

The UC/CSU/IOU Partnership is a natural fit with the goals, objectives and strategies articulated in the CLTEESP. The partnership was designed to achieve immediate energy and demand savings and establish a permanent framework for sustainable, comprehensive energy management programs. The partnership program is an existing statewide nonresidential program that will continue in the –2014 - 2014 program cycle. It will continue to offer incentives for retrofit projects, monitoring-based commissioning, and training for campus energy managers.

SoCalGas and the other IOUs have implemented the partnership program with the goal of extending the reach and effectiveness of traditional utility programs by using the UC and CSU system communication and outreach channels. This will achieve broad penetration of energy efficiency services on campuses. SoCalGas will engage the UC and CSU systems to be strategic partners to help reach campus end-use customers through partnership activities and serve as channels for the IOUs' other energy efficiency and demand reduction programs.

The statewide partnership concept was pioneered during the 2004-05 program cycle by the four IOUs and the UC and CSU systems. The program was very successful in achieving the above goals. The UC/CSU/IOU Energy Efficiency Partnership will build on this success and emulate these strategies for the –2013 - 2014 program cycle. Projects will adopt a comprehensive approach by including retrofits and DSM alternatives to include: demand-response, distributed generation (renewable self-generation), solar hot water and water efficiency.

b) List Measures

Measure Categories	Technologies
Lighting	Includes indoor and outdoor fluorescent, HID, LED replacements, lighting controls, and other lighting projects.
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the lighting or HVAC categories.
Air Conditioning and Refrigeration	Includes system and major subsystem replacements
Other	New Construction, RCx, MBCx, IT Projects and others

Incentives

Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed-upon energy savings determined as part of the project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.

Incentive rates for the New Partnership will be as follows:

- Lighting projects- $0.24/ kWh
- Motors/ VFDs/ Compressors/ Controls/ Others- $0.24/ kWh
- HVAC projects with electric savings- $0.24/ kWh
- Projects with gas savings- $1.00/ Therm
- Savings by Design/ Commercial New Construction Projects- $0.10/ kWh above core SBD incentive rate

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

a. Audit services
b. Technical assistance
c. Training and education
d. Design assistance
e. Due diligence project review
f. Outreach activities

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

4. Program Rationale and Expected Outcome

d) Quantitative Baseline and Market Transformation Information:

	Baseline Metric		
	Metric A	Metric B	Metric C
Program/Element	N/A	N/A	N/A

Refer to the overarching PIP section.

e) Market Transformation Information:

	Market Transformation Planning Estimates	
Program/Element	2013	2014
Metric A	N/A	N/A
Metric B	N/A	N/A
Metric C	N/A	N/A
Etc.	N/A	N/A

Refer to the overarching PIP section.

f) Program Design to Overcome Barriers:

g) Quantitative Program Targets

See Master Section PIP

h) Advancing Strategic Plan goals and objectives:

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond. **See Appendix:** summarizes how the Institutional Objectives and Strategies during the 2013 - 2014 program cycle contribute to the fulfillment of the Strategic Plan near-term action and steps toward the plan's longer term goals.

5. Program Implementation

i) Statewide IOU Coordination:

i) Program Name

University of California (UC)/California State University (CSU) / Investor-Owned Utility (IOU) Energy Efficiency Partnership

ii) Program Delivery Mechanisms

Quality Assurance and Evaluation Activities

For reporting purposes, both the State and the IOUs require a stringent measurement and validation (M&V) process. For ESCO projects, the state requires measurement of energy savings that are accurate and objective to ensure that the ESCO is meeting the conditions of their performance contract. An ESCO includes in its proposal a guarantee to provide an energy analysis compiled by an M&V agent that the state and the IOU, where applicable, must approve prior to payment. M&V services are equally important to the IOUs because they must provide a verification of savings to the California Public Utilities Commission to substantiate their use of public good charge funds. The state and the IOUs require assistance from subcontractors to perform M&V tasks.

The partnership management team establishes and oversees quality assurance measures for the partnership programs including oversight and verification of subcontractor activities. These procedures and the associated reporting are developed in detail during the program implementation process. Project teams provide the level of due diligence and quality assurance that are consistent with current partnership and utility programs. Test samples include a representative percentage of pre- and post-installation confirmation assignments

iii) Incentive Levels

a. Lighting projects- $0.24/kWh
b. Motors/VFDs/Compressors/Others - $0.24/kWh
c. HVAC projects with electrical savings - $0.24/kWh
d. All gas savings - $1.00/Therm
e. New construction projects - $0.10/ kWh above core SBD rates.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The UC/CSU/IOU Partnership is fortunate to have a built-in marketing and communication network between the UC Office of the President, the CSU Chancellors Office, and the campus energy managers. This “buy-in” from the top opens up communications channels to the whole system. Combined with the existing management structure from the 2006-08 and 2010-2012 programs, this will facilitate marketing activities through pre-established channels for 2013 - 2014. Due to support from the top of the organization, partnership programs will be very visible and provide opportunities to leverage existing UC and CSU conferences and meetings to raise awareness among campuses for the program. In 2006-08 this was accomplished via the CA Higher Education Sustainability Conference and the CSU Facilities Manager Meetings. As such, marketing efforts are minimal and cost effective.

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting each campuses head of facilities management informing them of the availability of funds for approved measures and activities in the partnership. The team schedules meetings to discuss options, implementation criteria,

Key Activity	Description
	benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After confirming an appropriate site for implementing measures and/or retro-commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.
Facility Audits	SCG will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

Reference Master PIP

vi) Similar IOU and POU programs

j) <u>Program delivery and coordination:</u>

k) <u>Best Practices</u>:

Reference Master PIP

l) <u>Innovation</u>:

The UC/CSU campuses have made significant progress in adopting innovative projects during the 2006-08 and 2010-2012 program cycles. Pilot projects were established with PIER for emerging technologies such as: Integrated Classroom Lighting Systems (ICLS), bi-level stairway lighting systems, and kitchen demand controlled exhaust hood ventilation controls. Additionally in 2008, the partnership began collaboration with IOU food service technology groups to expand energy efficiency in campus cafeterias. This effort was expanded in the 2010-2012 program cycle extensively with UC campuses. The plan for the 2013 - 2014 partnership is to expand the successes at the UC campuses to the CSU campuses.

m) <u>Integrated/coordinated Demand Side Management</u>.

n) <u>Integration across resource types</u> (energy, water, air quality, etc): .

o) Pilots:

No pilots proposed at this time.

p) EM&V:

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

1. Program Name: State of California/IOU Statewide Energy Efficiency Partnership
Program ID: SCG 3741
Program Type: Institutional Partnership

2. Projected Program Budget Table

Program #	Main/Sub Program Name	Administrative Amount	Marketing Amount	Direct Implementation Amount	Incentive Amount	Total Program Budget Amount
	Local Institutional Partnership Programs					
3741	LInstP-State of CA/IOU Partnership	$158,983	$122,433	$264,301	$0	$545,717
	TOTAL:	**$158,983**	**$122,433**	**$264,301**	**$0**	**$545,717**

3. Program Description

a) Describe Program

SoCalGas and the State of California are collaborating to continue the State of California/Investor-Owned Utilities (IOU) Energy Efficiency Partnership program for the 2013 - 2014 program cycle. This program's goals include sharing energy efficiency (EE) best practices and implementing projects to capture immediate and long-term energy savings.

The program will assist the state's agencies to reduce the amount of energy they purchase from the grid by 20 percent by the year 2015, as required by the governor's Executive Order S-20-04 (i.e. Green Building Initiative (GBI)). Like all Executive Orders, the GBI is an unfunded mandate that requires State agencies to support the governor's environmental agenda.

Accompanying the GBI is the Green Building Action Plan (GBAP), which contains detailed instructions on how to achieve the mandated energy savings and reduction in demand. In addition to requiring all new construction and large renovations to meet Leadership in Energy and Environmental Design (LEED) silver certification requirements, the GBAP directs the state to benchmark, retro-commission, and retrofit its existing building stock.

The objective of the State of California/IOU Partnership program is to develop creative strategies to maximize the implementation of energy efficiency opportunities throughout the state. Through the partnership, the state can increase the value that agencies receive on their investments in energy efficiency measures. The overall goal is to uncover opportunities for retro-commissioning and retrofits by leveraging IOU incentive programs. In addition to financial benefits, the partnership provides a mechanism for the State to receive technical assistance from IOU staff and consultants. The partnership assists state agencies to comply with Executive Order S-20-04, the California Public Utilities Commission (CPUC) Decision 05-09-043, and the IOUs' CPUC-approved energy efficiency and demand response programs.

Program activities will operate on a statewide, integrated basis, focusing on the development and implementation of projects that will provide immediate energy savings and set the foundation for a long-term partnership that focuses on sustainability and best practices. SCG will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

This partnership will seek opportunities to coordinate and integrate projects with other demand side management (DSM) programs and will provide a comprehensive approach by including retrofits and DSM alternatives that include demand-response, distributed generation (renewable self-generation), solar hot water, and the energy efficiency related elements of water conservation.

b) List Measures

Measure Name	Rebate to end use customer or its assignee ($/unit)
Customized - Indoor Lighting	$ 0.15
Customized - Indoor Lighting Controls & EMS	$ 0.15
Customized - Outdoor Lighting	$ 0.15
Customized - Outdoor Lighting Controls	$ 0.15
Customized - Motors	$ 0.18
Customized - VFDs	$ 0.18
Customized - HVAC EMS	$ 0.18
Customized - Chillers	$ 0.24
Customized - HVAC	$ 0.24
RCx/MBCx	$ 0.24
Overall Building Performance	$ 0.10 above core
System Approach - Light Power Density	$ 0.10 above core
System Approach - Chillers	$ 0.10 above core
System Approach - Daylighting	$ 0.10 above core
System Approach - HVAC Energy Reduction	$ 0.10 above core

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

g. Audit services
h. Technical assistance
i. Training and education
j. Design assistance
k. Due diligence project review
l. Outreach activities

4. Program Rationale and Expected Outcome

2013-2014 Energy Efficiency Programs
Institutional Partnerships
Program Implementation Plan

d) Quantitative Baseline and Market Transformation Information:

	Baseline Metric		
	Metric A	Metric B	Metric C
Program/Element	N/A	N/A	N/A

Refer to the overarching PIP section.

e) Market Transformation Information:

	Market Transformation Planning Estimates	
Program/Element	2013	2014
Metric A	N/A	N/A
Metric B	N/A	N/A
Metric C	N/A	N/A
Etc.	N/A	N/A

Refer to the overarching PIP section.

f) Program Design to Overcome Barriers:

The State of California's departments and systems are large, complex organizations with diverse geographic, climatic, and operational needs that serve a broad range of stakeholders and constituencies. With this size and diversity comes an opportunity to save energy and energy costs on a scale that is significant to the IOUs and to California taxpayers. In the 2006-08 and 2010-2012 program cycles, the partnership allowed the State and IOUs to remove many barriers and achieve some milestones that include:

- Barrier: Agreement of Objectives – In order for the Partnership to have a clear vision that supports the goal, it is clear that a guiding agreement needs to be set it place to allow the team to initiate the effort.
    - Solution: A Memorandum of Understanding (MOU) with the State to implement the partnership program in support of the Green Building Initiative allowed the partnership to have the proper sponsorship that provides enablement for the Department of General Services (as the state's primary procurement agency) and cooperation from each of the 36 agencies.
- Barrier: Project Delivery Mechanism – The State of California's departments and systems are large, complex organizations with diverse geographic, climatic, and operational needs that serve a broad range of stakeholders and constituencies. As the primary state procurement agency, the Department of General Services needed to have a project delivery mechanism in order to take advantage of the great energy savings opportunities for the state's agency facilities.

  - Solution: A model contract between the state and an Energy Service Company (ESCO) was developed and approved.
  - Solution: A list of qualified ESCOs is being used during the selection process.
  - Solution: An ESCO Request for Proposals has been developed and the first round of projects is out for bid. A list of projects has been created for the project approval process.
- Barrier: Project Funding Constraints – With the challenges the state is facing with their budgetary constraints, great opportunities for energy efficiency projects are not easily addressed.
  - Solution: The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades.
  - Increase purview of CEC loans to incorporate "other" State facilities.
  - Performance contracting with ESCOs
  - On-Bill Financing program
  - Additional innovative financing options
- Barrier: Information Dissemination – Some of the agencies lack the technical expertise to develop or manage projects. Therefore the state loses out on opportunities to improve efficiency when staff is unaware of available technology and measures or a lack of funds, or lack of management support causes the removal of such measures from a project.
  - Solution: The management team is currently developing an information tool for agencies that helps reveal the savings potential of implementing projects with likely energy efficiency measures that may appear in agencies' typical facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.
- Barrier: Gap in ESCO Process and Small Projects – The prior program cycle revealed to the management team that while the ESCO process works for the larger projects, smaller projects cannot pass the Life-Cycle Cost Analysis and the ESCOs do not find the projects attractive. 95% of the state's building inventory is under 25,000 sq. ft. which indicates the majority of the projects are smaller.
  - Solution: The management team is exploring alternative project delivery and financing models which may include a mechanism that creates seed money for starting up projects and integrating it with the On-Bill Financing program. This would be augmented by innovative pilot project delivery models such as the project co-funding approach, low to no cost measure offerings, and third party program bridging to pilot concepts that may fill gaps in the program.
- Barrier: Specific agencies who partake in EE projects are unable to delegate utility incentives to their internal budgets
  - Solution: Work with Department of Finance to authorize agencies to keep incentives.
- Barrier: Lack of consensus between executive buy-in and facility management.

  - Solution: Management team to push for coordinated meetings with executives and facility management.
- Barrier: The State of CA and unfunded mandates
  Solution:
  - State of CA to assign funding for specific energy efficiency projects.
  - Increase purview of state agencies under CEC loans.

g) <u>Quantitative Program Targets</u>: .

See Master Section

h) Advancing Strategic Plan goals and objectives:

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond.

5. Program Implementation

a) <u>Statewide IOU Coordination</u>:

i) Program Name

The State of California/IOU Energy Efficiency Partnership Program

ii) Program Delivery Mechanisms

Delivery mechanisms, program elements and subcontractor activities are detailed above in Master PIP Section 4, a.

The State of CA is unique in the fact that it utilizes benchmarking systems for project identification.

<u>Benchmarking</u>

The identification of potential projects begins with a benchmarking effort. The state uses the United States Department of Energy's benchmarking tool, Portfolio Manager, to determine the ENERGY STAR scores of all state-owned buildings. Low-scoring facilities may be candidates for retro-commissioning or retrofit projects.

- Buildings that receive scores of 75 or higher meet the requirements of Executive Order S-20-04.
- Buildings that receive an ENERGY STAR® score between 45 and 75 receive consideration for retro-commissioning.

- Buildings that receive scores lower than 45 are candidates for retrofits or renovation. These buildings would not benefit from retro-commissioning since the low score indicates the existence of problems that lie outside the scope of retro-commissioning, such as major equipment replacement.

Once a retro-commissioning or a retrofit project maximizes a building's energy efficiency, it is benchmarked again during the measurement and verification (M&V) process. Benchmarking provides the information that the state needs to compile a yearly report on progress made toward achieving the 20 percent reduction in energy usage by 2015 (mandated by Executive Order S-20-04), and allows the IOUs to document the energy savings accrued by the partnership. The state conducts these activities with assistance from the IOUs. In fact, during the previous cycle, the partnership was instrumental in providing support to the State, the IOUs, and administrator for the Portfolio Manager program at the U.S. Department of Energy to allow the IOU energy usage data to seamlessly transfer to the DOE database for benchmarking. These modifications benefited not only the state, but other customers, as well as the federal program operators. This unanticipated benefit reflects the type of opportunities the partnership makes available to the state.

iii) Incentive Levels

a. Lighting projects- $0.15/kWh
b. Motors/VFDs/Compressors/Others - $0.18/kWh
c. HVAC projects with electrical savings - $0.24/kWh
d. All gas savings - $1.00/Therm
e. New construction projects - $0.10/ kWh above core SBD rates.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The retrofit and retro-commissioning program elements use similar marketing approaches. The partnership management team, in coordination with DGS and other state agency staff conduct marketing and outreach efforts. These efforts are accomplished using contacts with facility administrators and managers. Team members inform them of the availability of energy efficiency services available through the partnership and other utility programs. Key marketing activities include:

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting the heads of facilities management for each department, informing them of the availability of funds for approved measures and activities in state facilities. The team schedules meetings to discuss options, implementation criteria, benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After

Key Activity	Description
	confirming an appropriate site for implementing measures and/or retro-commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

The partnership shall utilize the available CEC funding mechanism for the state hospital projects. There are currently two state hospital facilities in the pipeline to take advantage of this opportunity.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offerings where practicable to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If POUs have interest in implementing EE programs, the partnership shall provide technical assistance in designing these programs if requested.

b) <u>Program delivery and coordination:</u>

The State of California/IOU Partnership is in a unique position in which by collaboration, has certain delivery and coordination activities made possible by the agreements that are in place as required when entering into the partnership. Below are types of coordination activities already in place within the partnership:

i. Emerging Technologies Program

If opportunities allows, the IOUs bring forth emerging technologies to the partner either through PIER project opportunities or the management team's introduction of technology demonstration projects.

ii. Codes and Standards Program

See Master PIP Section

iii. *WE&T Efforts*

WE&T type of activities is an integral part of the MBCx strategy where facilities staff are trained to maintain building optimization adding value to their skill sets and further securing their need in the workforce.

iv. *Program-specific marketing and outreach efforts (provide budget)*

The outreach efforts for the partnership involve working with individual state agencies that may have the resources or commitment to implement energy efficiency projects.

v. *Non-energy activities of program*

Non energy activities include the technical assistance the partner may need but do no have the resource available in house. The program provides this kind of support as an added benefit to the partner in addition to the monetary incentives they may receive from the IOUs.

vi. *Non-IOU Programs*

The partnership understands that some third-party programs serve the purpose of filling program gaps. The IOUs sees this as an added value to the program offering and makes the effort of augmenting the program's offering with these non-IOU programs.

vii. *CEC work on PIER*

PIER technology projects are introduced into the programs at the project level when opportunities arise.

viii. *CEC work on codes and standards*

N/A

ix. *Non-utility market initiatives*

N/A

c) *<u>Best Practices</u>*

See Master Section PIP

d) *<u>Innovation</u>:*

There are several innovative models currently being developed. They include:

- A co-funding model allows the project implementation activities to be shared between the agency and the IOU in order to facilitate implementation where barriers exist. In the state's stringent contracting requirements, one approach is to perform contracting and contract payments through the IOU's project implementation infrastructure. This system works around obstacles that agencies would normally encounter with the state's infrastructure while still complying with internal requirements.

e) *Integrated/coordinated Demand Side Management:*

See Master Section PIP

f) *Integration across resource types (energy, water, air quality, etc):*

N/A

g) *Pilots:*

The State of California Partnership program is exploring different options for program delivery models that may fill gaps in program design. While the Retro-commissioning and ESCO process may work for larger projects, a solutions package for the small retrofit and modernization project is needed for the majority of the projects. The partnership program is currently underway with pilot projects that address the project development and financial barriers. These pilot projects are as follows:

- A co-funding model allows the project implementation activities to be shared between the agency and the IOU in order to facilitate implementation where barriers exist. In the state's stringent contracting requirements, one approach is to perform contracting and contract payments through the IOU's project implementation infrastructure. This system works around obstacles that agencies would normally encounter with the state's infrastructure while still complying with internal requirements.

h) *EM&V:*

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

6. Diagram of Program:

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7. Program Logic Model

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CCC Program Diagram

Table A1 – CCC Outreach Process

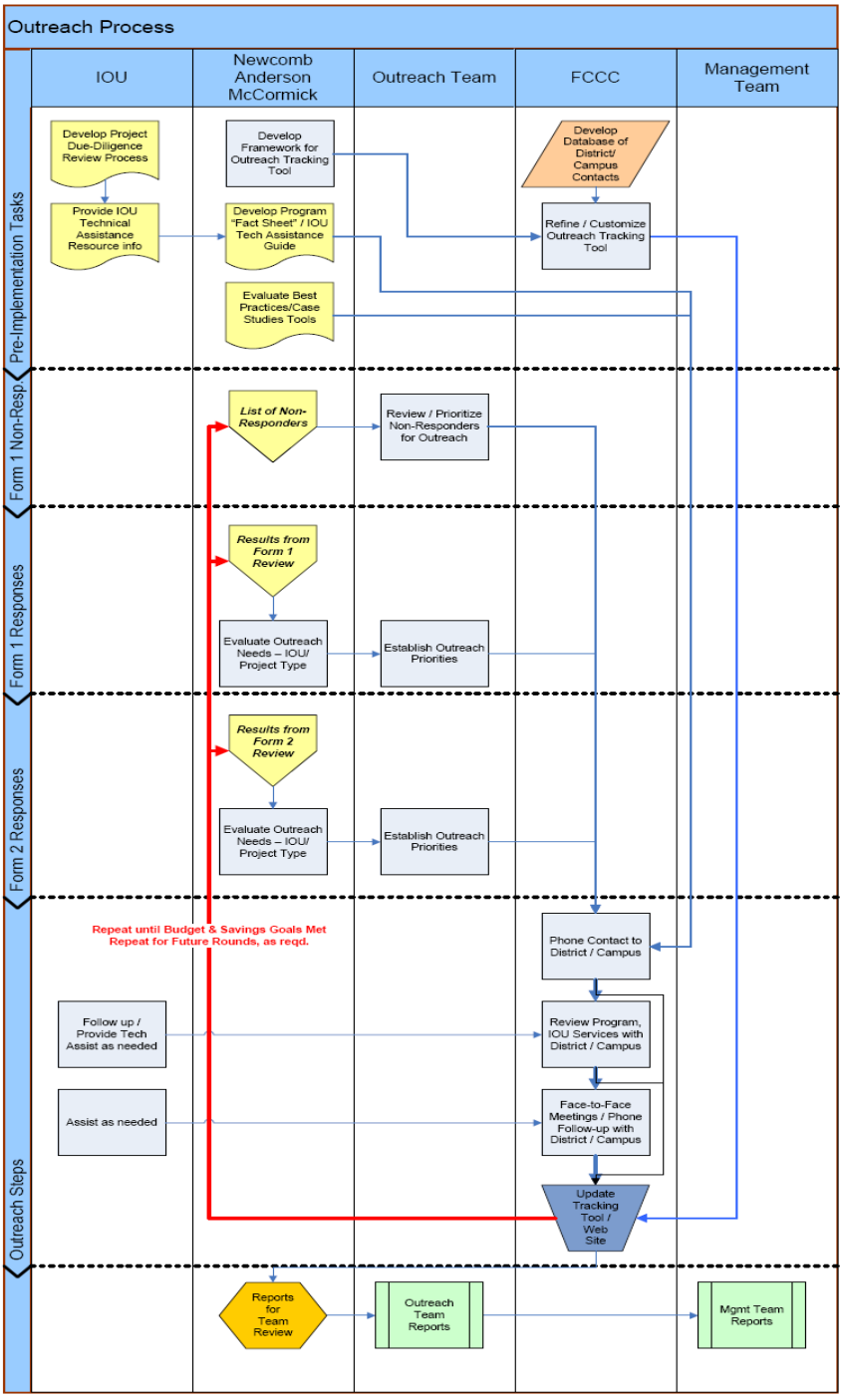

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Table A2 – CCC EE Project Proposal and Approval Process

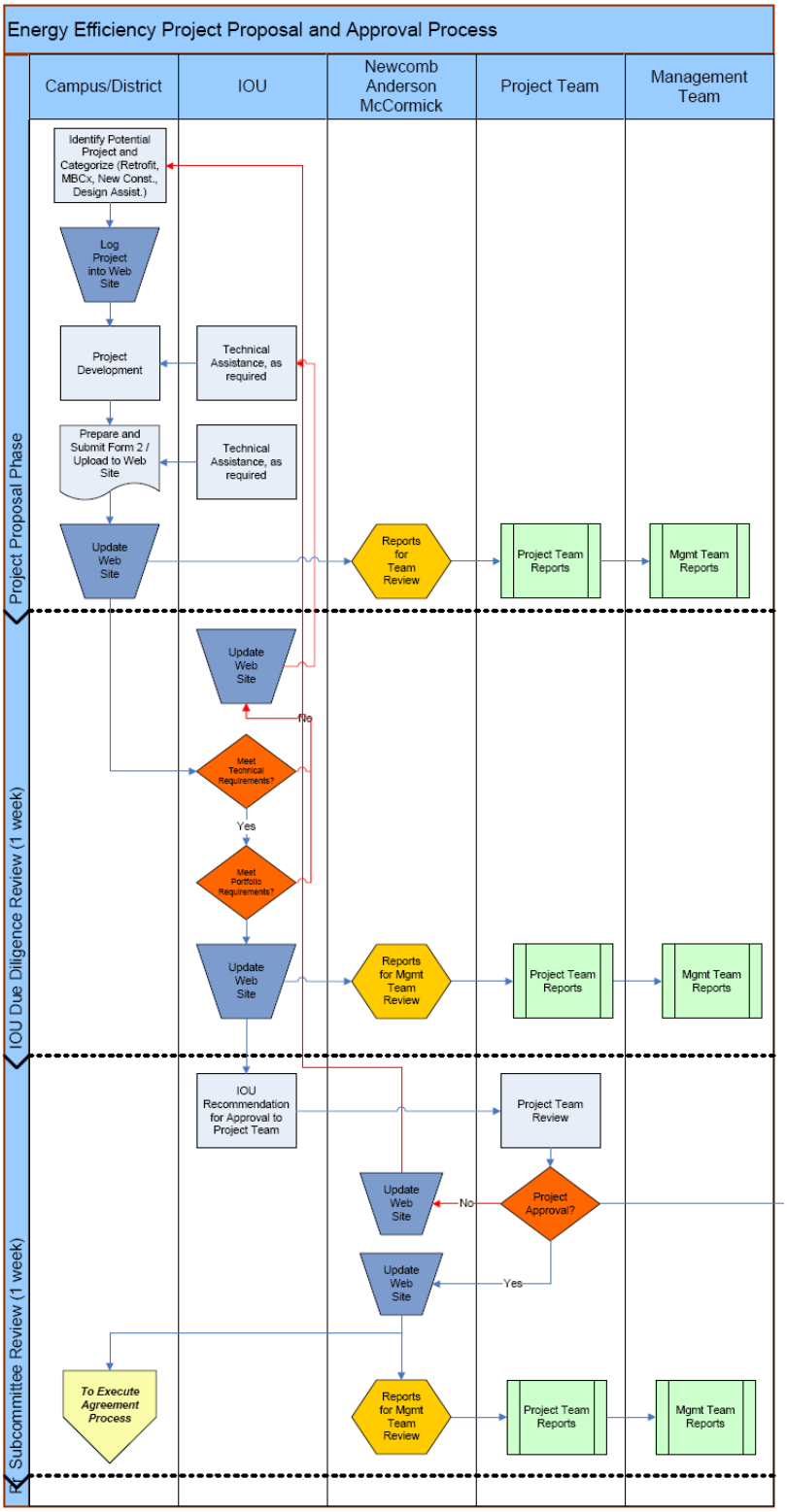

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Table A3 – CCC Execution of Project Agreement

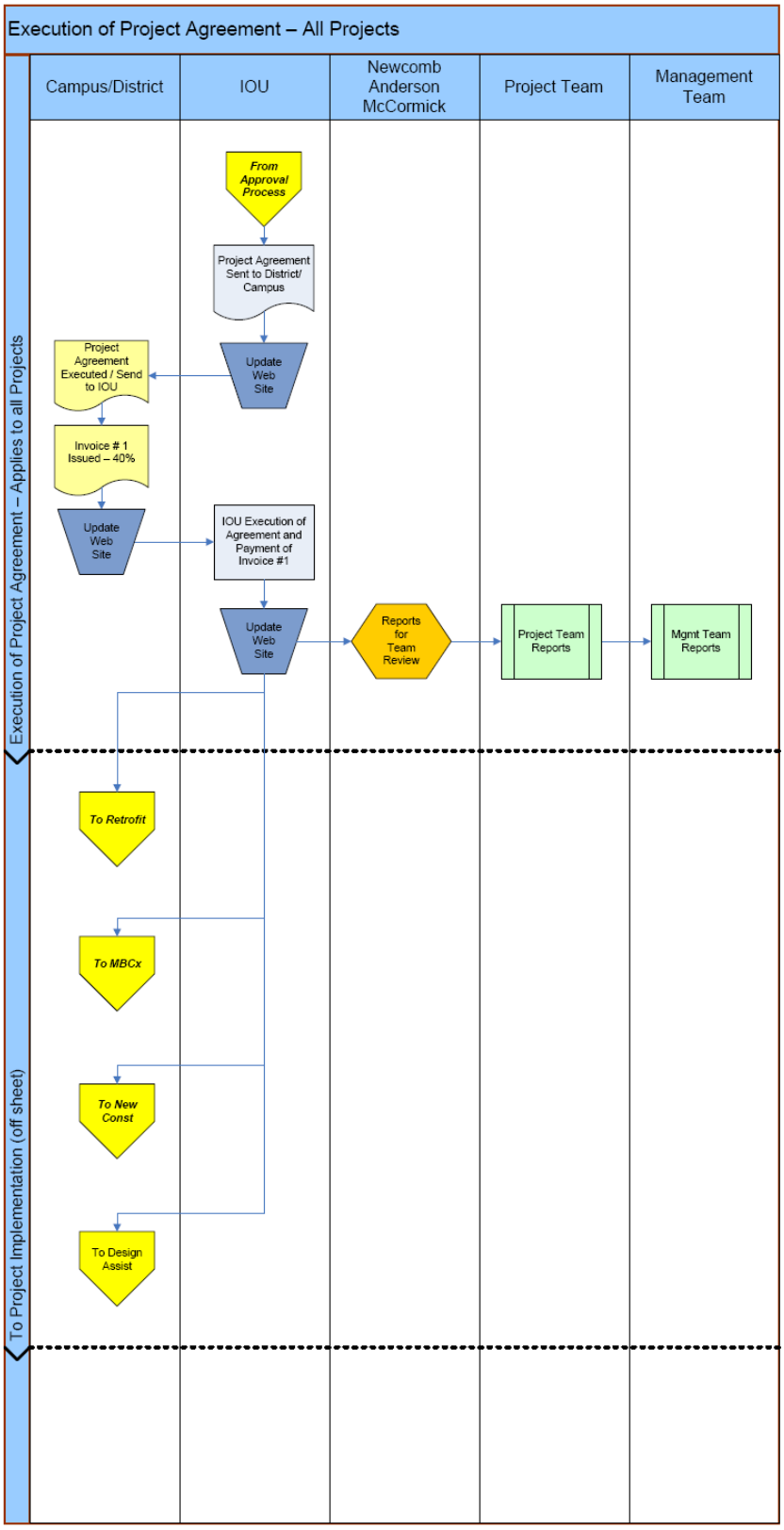

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Table A4 – Retrofit Program Implementation Process

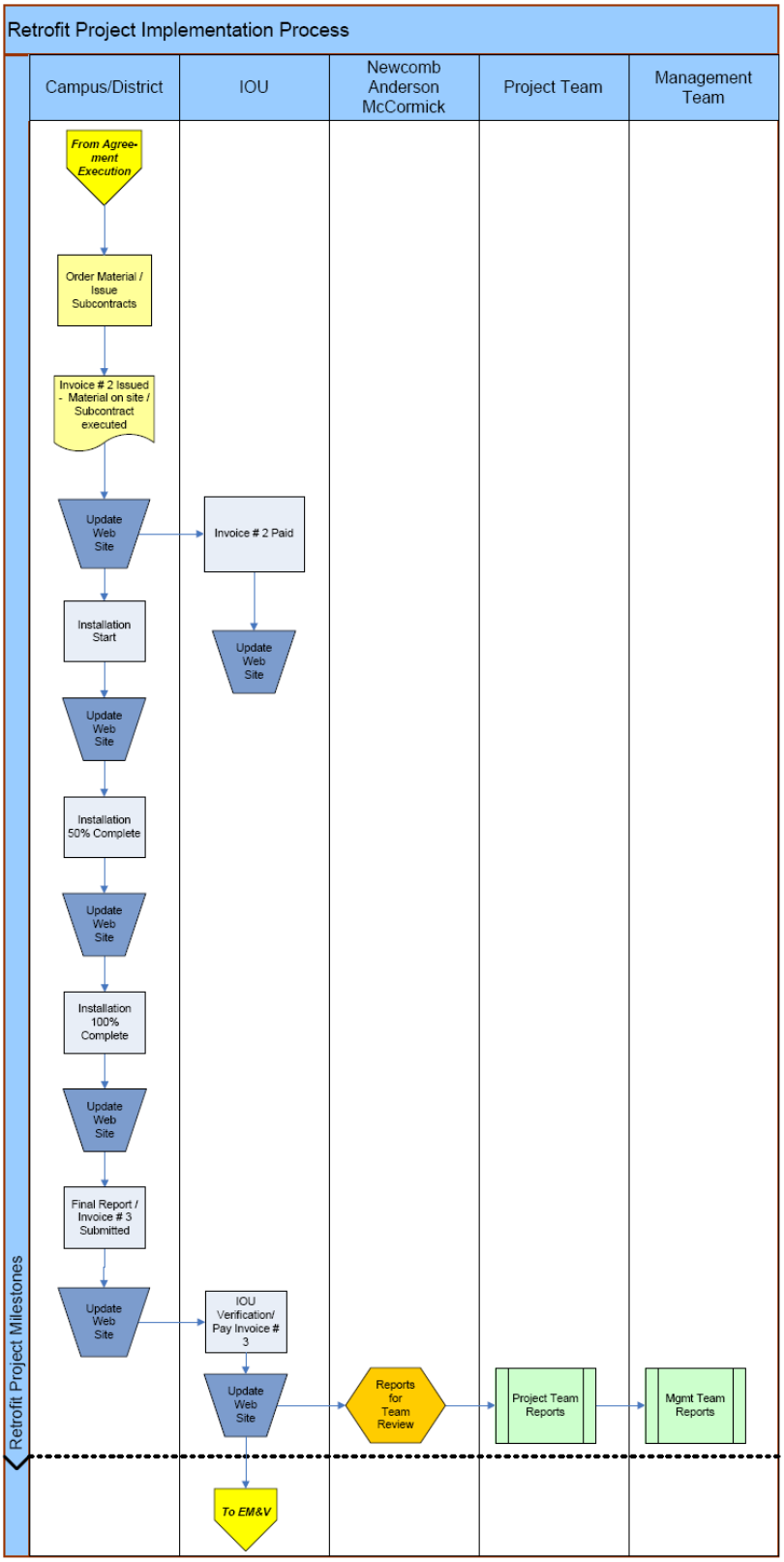

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Table A5 – CCC EM&V Process

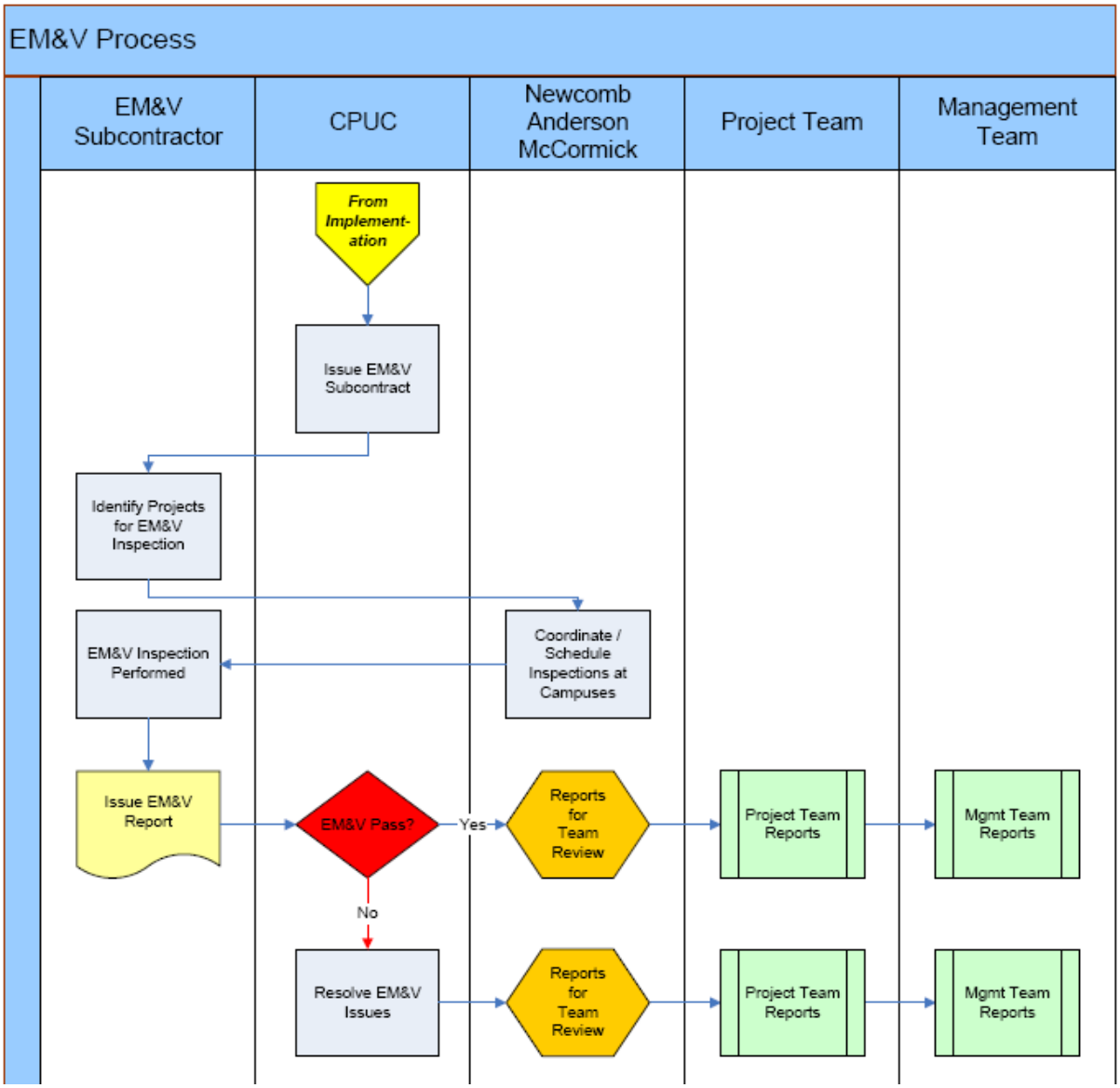

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Table B1 – CCC Program Logic Model

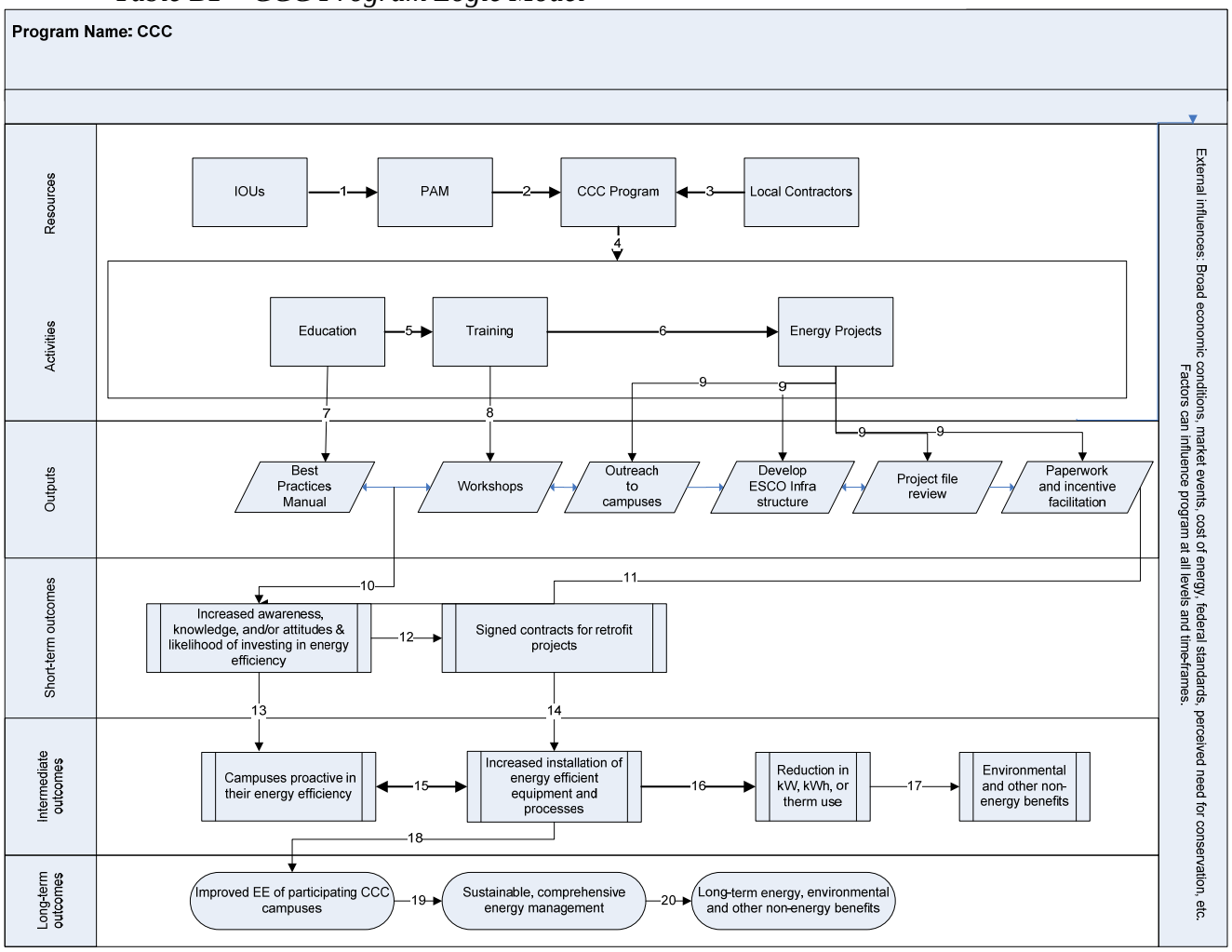

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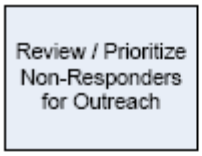
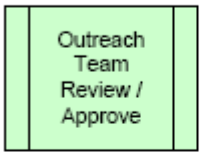
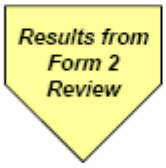
Table B2 – CCC Logic Model







Legend	
Symbol	Description
	Process
	Document
	Team Review Report
	Report Preparation
	Off-page reference
	Update Web Site
	Decision

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Table C1 – CDCR Process Flow

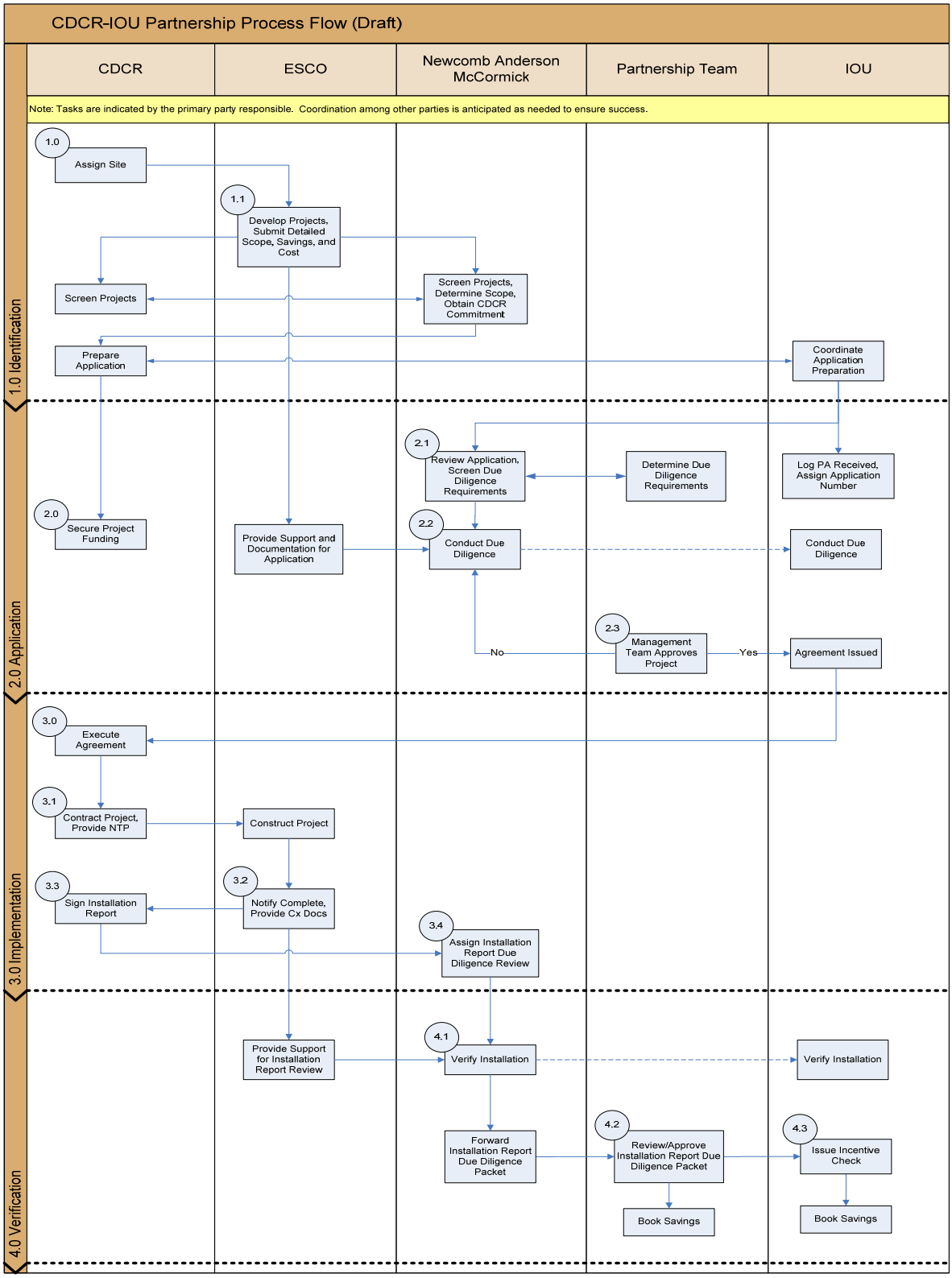

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Table D1 – CDCR Logic Model

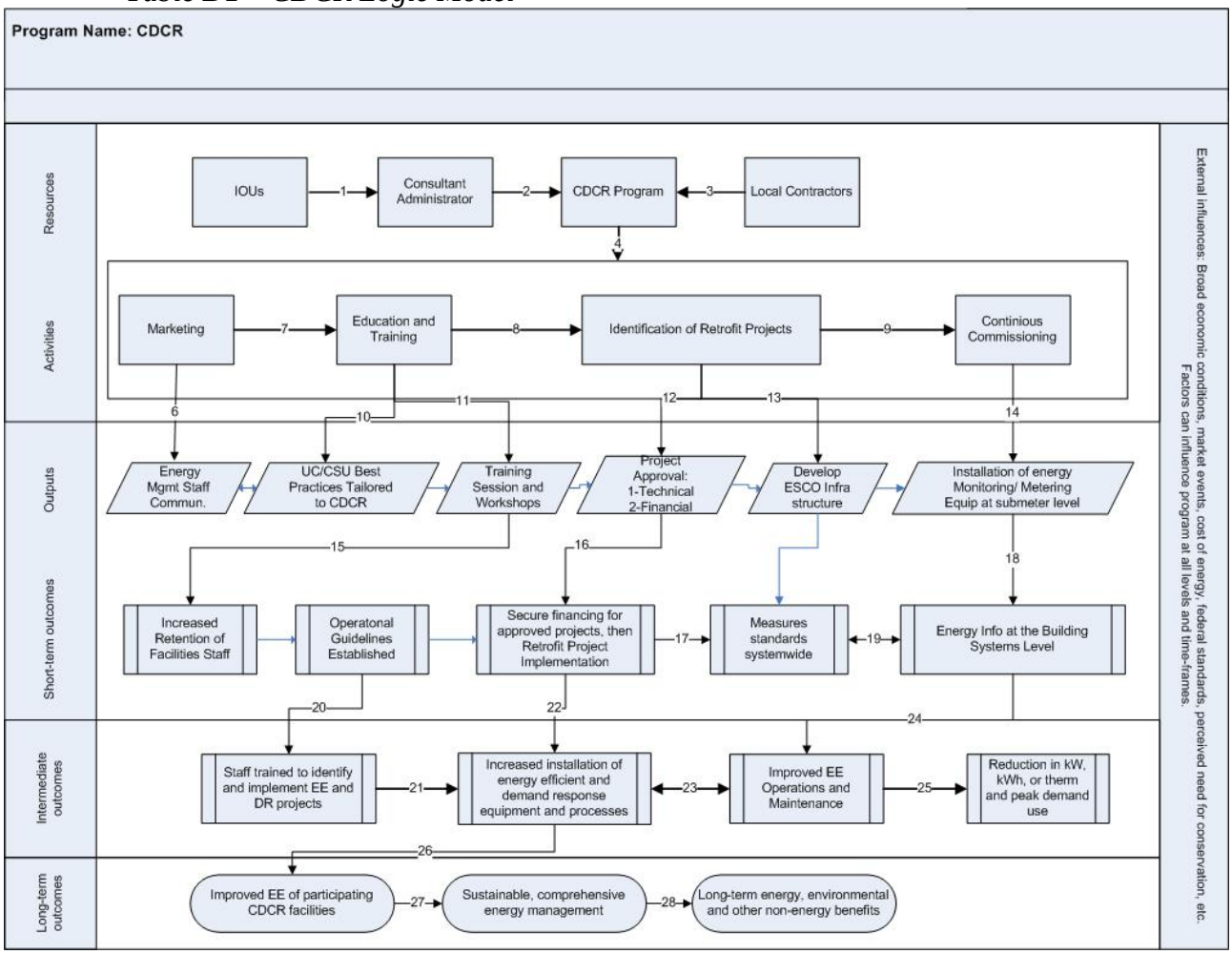

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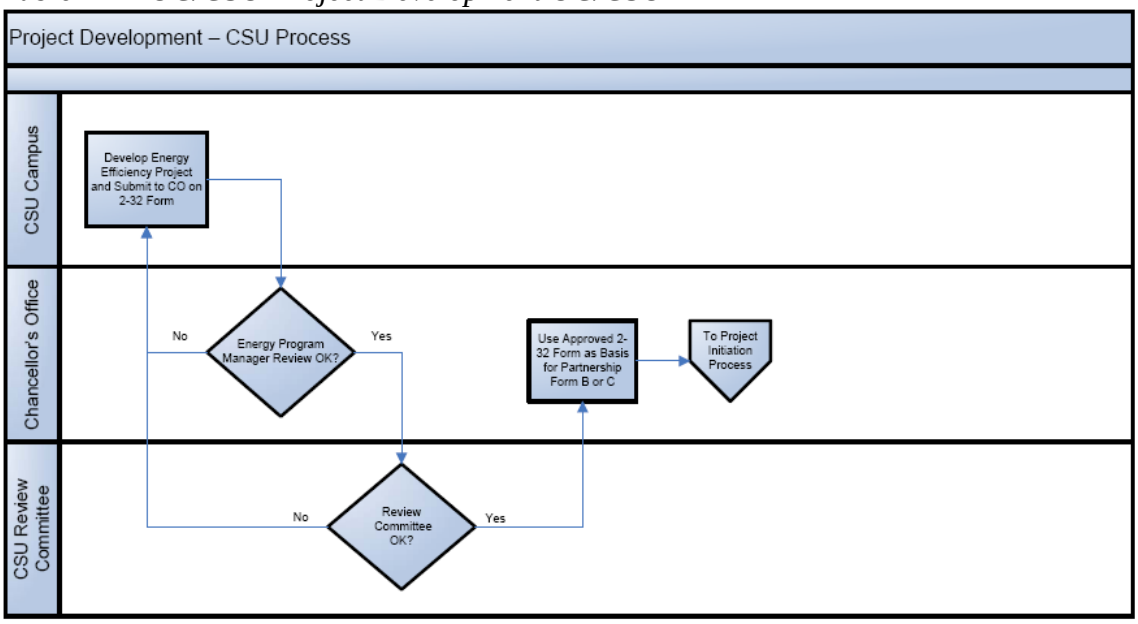
Table E1 – UC/CSU Project Development UC/CSU



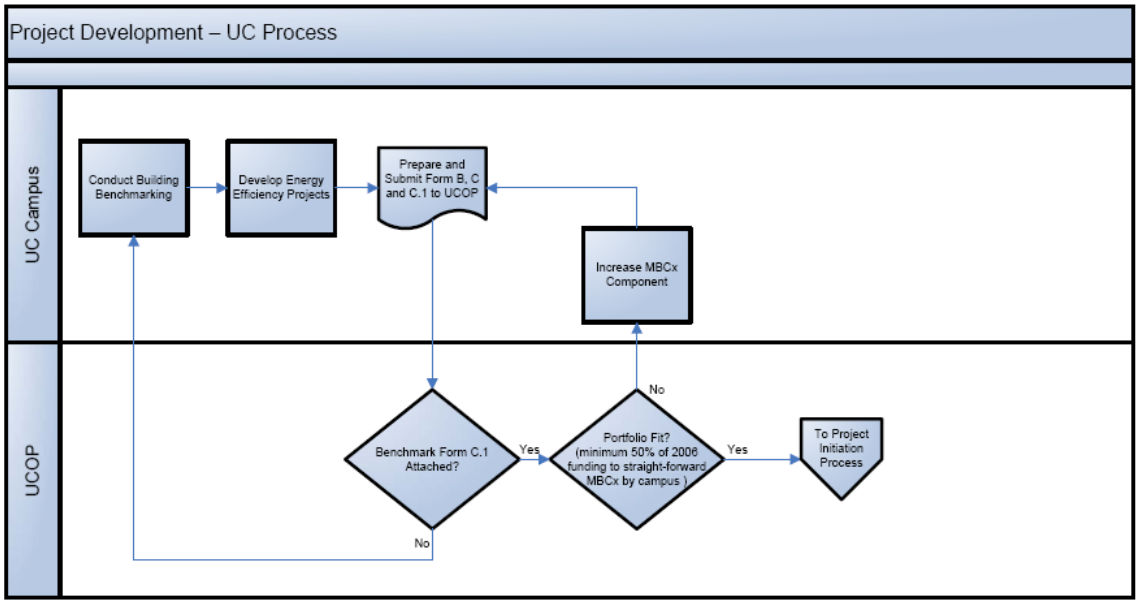


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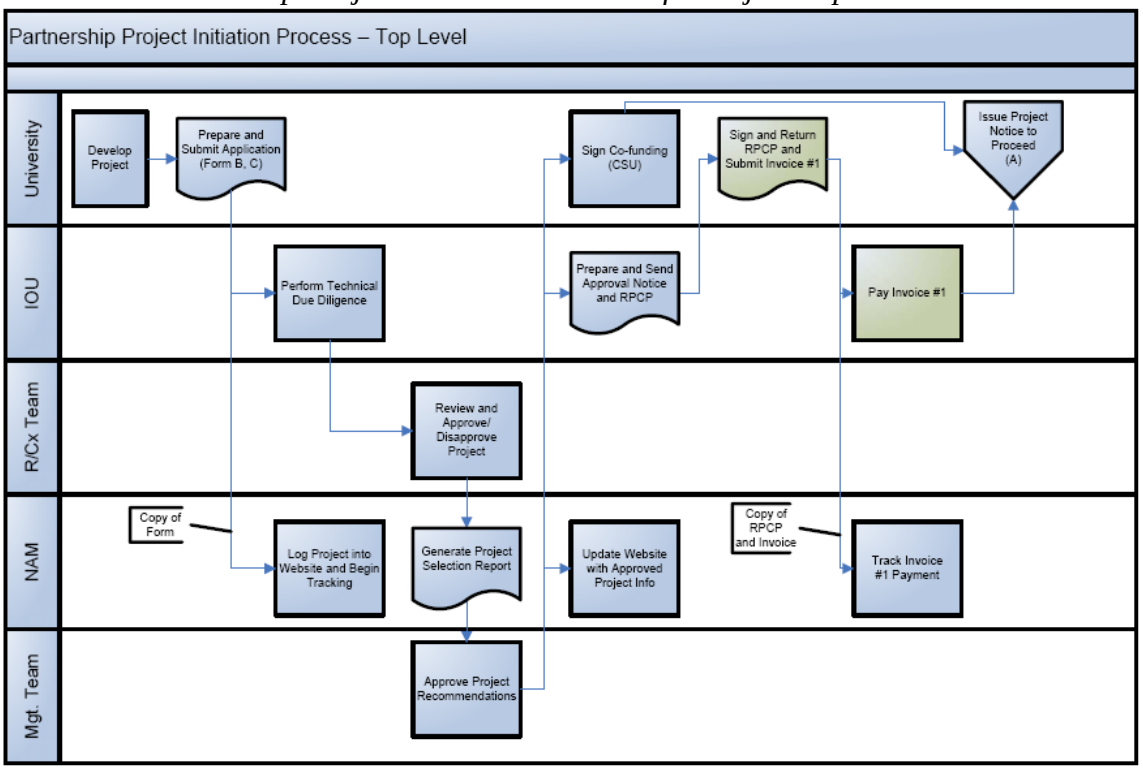
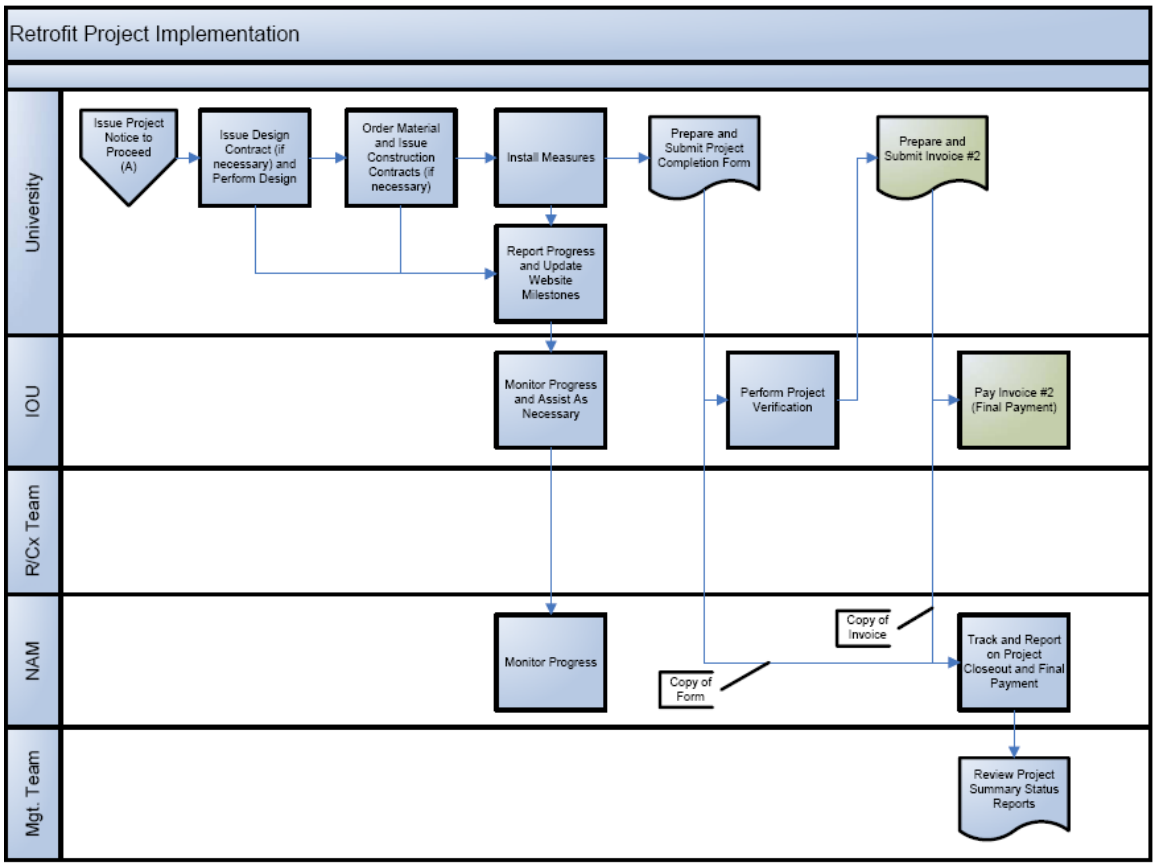
Table E2 – Partnership Project Initiation and Retrofit Project Implementation UC/CSU





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MBCx Project Implementation UC/CSU

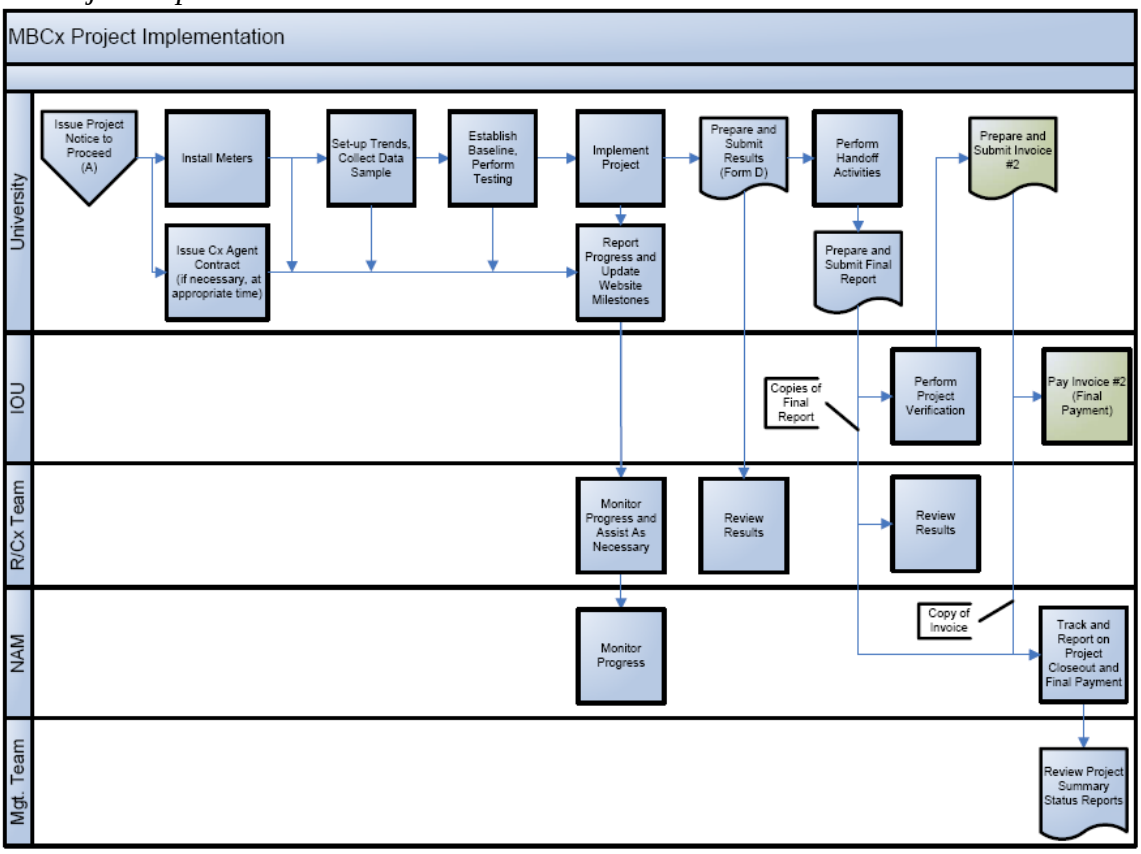

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Table F1 – UC/CSU Program Logic Model

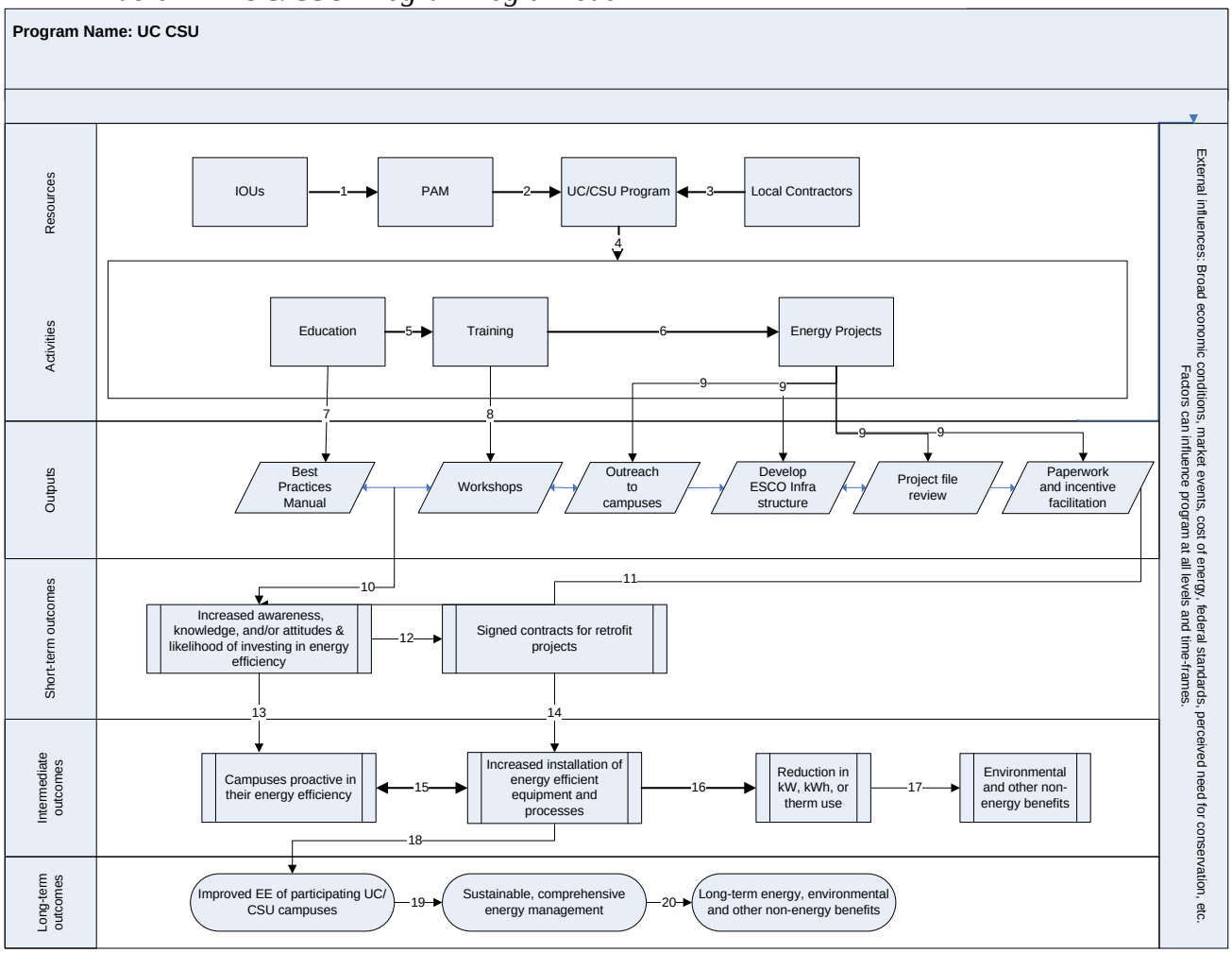

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Table G1 – State of California Roadmap

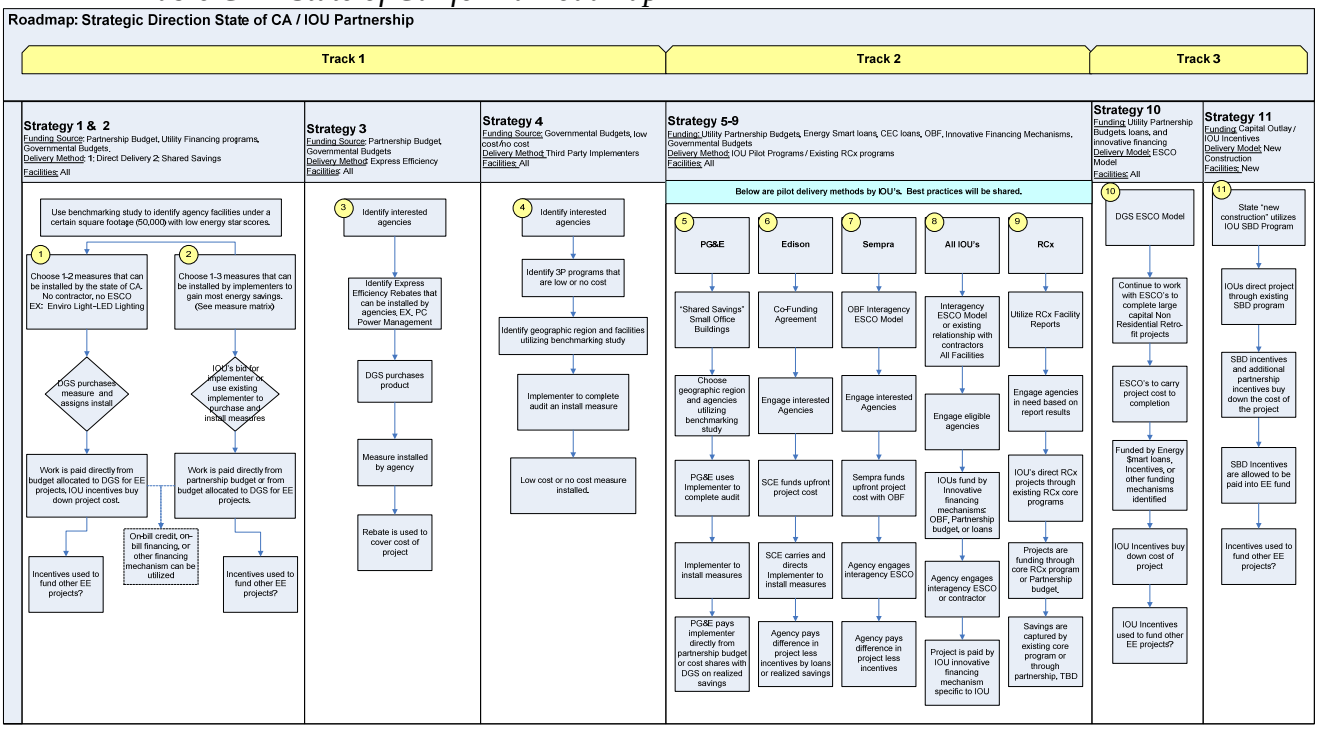

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Table G2 – State of California Measure Matrix

State of CA Measure Matrix and Timeline

0-3 Months		**3-6 Months**	
IOU's would contract directly with the Manufacturer for Installation - incentive would offset cost of product and installation		IOU's would contract directly with the Manufacturer for Installation - incentive would offset cost of product and installation	
Technology	**Estimated Length of Installation**	**Technology**	**Estimated Installation Time**
Vending Machine Controls	2-3 Months	Occupancy Sensors	4 Months
PC Network Software	1-3 Months	CFL replacement	4-5 Months
LED Exit Signs	3 Months	Steam Traps	5-6 Months
Storage Water Heaters	1-3 Months	Server Virtualization	4-5 Months
Examples of Agencies to Participate		Domestic Hot Water Boilers	5-6 Months
DHS		Fume Hood Occupancy Sensors	3-6 Months
DOM		Furnaces	3-6 Months
DDS		Building Envelope (Insulation, Window Treatmetns	3-6 Months
DMH		Food Service Equipment Replacement	3-6 Months
Fairs and Expos		**Examples of Agencies to Participate**	
Cal Trans		DMV	
BOE		CHP	
DGS		DMH	
State Compensenation Ins. Fund		DDS	
		Cal Trans	
		DHS	
		Fairs and Expos	
		DGS	
		Courts	

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State of California Program Logic Model